

The



CHEMIST AND DRUGGIST

for RETAILER — WHOLESALER — MANUFACTURER

AUGUST 18, 1951



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SPEKE

LIVERPOOL



The CHEMIST AND DRUGGIST

for RETAILER—WHOLESALE—MANUFACTURER

AUGUST 18, 1951

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Volume CLVI

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NEWS OF THE WEEK

Consumption of Sulphuric Acid.—According to figures issued by the National Sulphuric Acid Association, 166 Piccadilly, London, W.1, consumption of sulphuric acid and oleum in the United Kingdom during 1950 amounted to 1,816,134 tons, of which 1,34 tons went to the drug and fine chemicals industry.

Papers on Biological Assays.—Three papers, "The Distribution of Errors in Use Insulin Assays," "Simplification Statistical Computation," and "Cuprate Assays of Biotin and Nicotinic Acid" were read at a meeting of the Biological Methods Group, Society of Public Analysts and Other Analytical Chemists, in London, recently. Demonstrations of biological assays followed the papers.

Technical Information on Microfilm.—An index, on microfilm, which contains information on chemical products marketed under trade names in Europe and U.S.A. is available for free inspection, by appointment, at the Technical Information and Documents Unit of the Department

ment of Scientific and Industrial Research, Lacon House, Theobalds Road, London, W.C.1 (telephone: Chancery 4411). The products in the index include dyestuffs, plastics, detergents, insecticides, solvents and pharmaceutical products.

Workmen's Compensation.—The Workmen's Compensation (Supplementation) Scheme, 1951, which concerns people who have rights under the Workmen's Compensation Acts following an accident or disease which happened before January 1, 1924, came into force recently. Any person who considers that he may be affected by the scheme, and has not received a letter from the Workmen's Compensation Supplementation Board, should apply to the nearest local National Insurance Office for a copy of Explanatory Leaflet W.S.1.

Standards in Britain.—The British Standards Institution has published the "British Standards 1951 Year Book" and "Fifty Years of British Standards 1901-1951." The former (400 p.) gives a list of 1,700 British Standards current on

December 31, 1950. A supplement, giving standards issued between January 1 and March 31 is included. The other volume is a historical record of the British standards movement from the origin of the Institution in 1901. The two publications may be obtained from the sales department of the Institution, 24 Victoria Street, London, S.W.1, prices 7s. 6d. and 10s. 6d. post free respectively.

Import Licence Changes.—A further list of goods covered by open general licence has been issued by the Board of Trade with effect from August 21. They including the following:

Fullers earth; bitter almonds, apricot and peach kernels for expressing oil; nitro-cellulose; glass wool; certain optical and scientific instruments; goldbeater's skins; film and plate containers which are inserted in or attached to cameras; rice, millet and buckwheat starches (not for use as food); waxes of all kinds, other than paraffin wax and scale. **DELETIONS** include: Chloramphenicol (Chloromycetin), acetic anhydride and monochloroacetic acid.

The goods must originate in and be consigned from certain countries. Open individual licences are to be issued for the import of metal containers of a capacity of less than 1 gall.

Aromatic Compounds Manufacturers.

The annual meeting of the British Aromatic Compound Manufacturers' Association was held in London recently. The chairman (Mr. A. J. Plastow) who presided referred in his report to the continued efforts made by the Association to secure the inclusion in trade agreements negotiated between the United Kingdom and other countries of specific headings covering the export of aromatics. Representations had been made about hindrances to exports to France, Spain, Norway, Argentina and Indonesia and export quotas had been urged in the trade agreements with many other countries. Mr. R. F. Gillham (Chas. Zimmerman & Co., Ltd.), and Mr. S. R. Mansfield (Polak & Schwarz (England), Ltd.), were elected *Chairman* and *Vice-chairman* respectively for the year.

Control of Hospital Salaries, etc.—The National Health Service (Remuneration and Conditions of Service) Regulations, 1951 (S.I. 1951, No. 1373) made recently by the Minister of Health and operative from August 13 stipulates that subject to any Act of Order the remuneration of hospital officers for whom salary rates have been negotiated and approved by the Minister, shall in fact be that remunera-

tion. A similar stipulation is made concerning conditions of service. The Minister can authorise a Hospital Board of Management Committee to vary the approved remuneration or conditions of service in the case of an individual officer or "officers of a particular description. Hospital Boards or Management Committees which are parties to contracts in variance with the regulations shall take appropriate steps in accordance with such contract for terminating it at earliest practicable date, or for amending it to bring it into conformity with the regulations unless the Minister gives to them direction in writing in any particular case or class of cases." (See comment p. 218).

Increased N.I. Contributions. — The Ministry of National Insurance has announced that from October 1, National Insurance weekly contributions are to be increased to the following:—

EMPLOYED PERSONS

AGE	MEN		WOMEN	
	EMPLOYEE	EMPLOYER	EMPLOYEE	EMPLOYER
18 and over	s. d.	s. d.	s. d.	s. d.
Less than 18	5 1	4 4	4 0	3 5
	2 1 1/2	2 6 1/2	2 5	2 0

SELF-EMPLOYED PERSONS

AGE	MEN	WOMEN
18 and over	s. d.	s. d.
Less than 18	6 6	5 5

NON-EMPLOYED PERSONS

AGE	MEN	WOMEN
	s. d.	s. d.
18 and over	5 0	4 0
Less than 18	2 11	2 5

Emergency Sera Supplies.—The Ministry of Health have issued the following revised list of centres that keep emergency supplies of sera for the treatment of anthrax, botulism and snake-bite. A twenty-four hour service is maintained at each centre:—

Newcastle General Hospital; Cumberland Infirmary, Carlisle; Seacroft Hospital, York Road, Leeds; Castle Hill Hospital, Cotttingham, York; Nottingham City Hospital Hucknall Road, Nottingham; Regional Blood Supply Depot, Brookland Avenue, Cambridge (Monday to Friday, 8 a.m.-10 p.m., Saturday 8 a.m.-6 p.m.); North Middlesex Hospital; South London Blood Supply Depot, Stanley Road, Sutton, Surrey; Royal South Hants and Southampton Hospital (Snake anti-serum only); Northampton General Hospital; Royal Berkshire Hospital

tal, Reading; Ham Green Hospital, Bristol; Swilly Isolation Hospital, Plymouth; Royal Devon and Exeter Hospital; Royal Cornwall Infirmary, Truro; Canton Infectious Diseases Hospital, Cardiff; Selly Oak Hospital, Birmingham; Manchester Royal Infirmary; and The Fazakerley Isolation Hospital, Liverpool.

In addition, 10-mil containers of anthrax antiserum for prophylactic use may be obtained during the day-time from the following centres:—

Public Health Laboratory, 16 Edmund Street, Bradford; Public Health Laboratory, 184 High Street, Kingston-upon-Hull; Bacteriological Department City Laboratories, 126 Mount Pleasant, Liverpool; Central Public Health Laboratory, Colindale Avenue, London, N.W.9; Public Health Laboratory, General Hospital, Westgate Road, Newcastle, 4; Public Health Laboratory, General Hospital, Northampton; Public Health Laboratory, County Hall, Taunton; Public Health Laboratory, Institute of Preventive Medicine, Cardiff.

Optical Congress and Dinner.—Nearly 200 delegates from the British Commonwealth and Europe attended an International Optical Congress and Exhibition in London recently (sponsored by the British Optical Association). During the first week original technical papers were read. An exhibition of optical apparatus sponsored by wholesale and manufacturing opticians formed the nucleus of the second week's activities. Delegates from overseas attending the Congress were entertained to dinner by the Institute of Optical Science on July 19. The guests were welcomed by Mr. R. Goode, D.Opt., M.P.S. (president of the Institute), Mrs. Goode and Mrs. Ross-Mansell. The president said that membership of the Institute continued to increase and students had come from most parts of the British Commonwealth. It was hoped that the rising costs of running the Institute could be offset by greater efficiency and thus make it unnecessary to raise membership fees. On behalf of the Institute Mr. Goode presented a silver tea service to its first president, Dr. R. Walter Simpson. Mr. F. W. Skinnard proposed the toast "The Institute," to which a reply was given by Dr. J. Ross-Mansell (secretary and director of studies), who also proposed the toast to Members of Parliament present, amongst whom were Messrs. S. P. Viant, Leslie Lever, W. A. Griffiths, C. R. Hobson (Assistant Postmaster-General) and Mrs. C. Granby, who responded. Messrs. H. Noble (secretary, National Pharmaceutical Union) and J. F. McNeal (a member of the Pharmaceutical Society's Council) were also present.

LOCAL NEWS

Commercial Travellers' Schools.—At a garden party, at Hatch End, Pinner, recently, the Royal Commercial Travellers' Schools raised funds expected to amount to over £850 for the schools.

Reply to Longer-hours Request.—Lancashire Executive Council have informed Irlam trades council, which wrote urging that a chemist at each end of Irlam district should remain open until 7 p.m. every week-night, that chemists in the area are giving a good pharmaceutical service and that any chemist under contract with the Committee will dispense urgent prescriptions.

Festival Window Display.—A window display, "100 Years in Pharmacy," was organised by Allen & Neale (Chemists), Ltd., Kings Lynn, for the Kings Lynn festival week (July 23-28). Included in the display were old recipe and copy books of 1851, crude drugs of that period, a photograph of the old pharmacy of the company, modern antibiotics, a T.S.A. licence and a photograph of the present pharmacy.

Approach to M.P.s.—The Stoke-on-Trent Employee Pharmacists' Association has decided to approach local M.P.s to protest against the proposed abolition of resale price maintenance. The Association hopes that all employee organisations will follow its example in order that the Government may more readily appreciate the views of employee pharmacists on the matter.

Plymouth Presentation.—At an informal dinner on July 16, members of the Pharmaceutical Committee of Plymouth presented a table lamp to Mr. C. Condy U'Ren (chairman) in recognition and appreciation of the service he has rendered to pharmacy and the committee. Mr. U'Ren has been secretary to the committee for twenty-three years and chairman five years.

Dover Weights Inspection.—Reporting on his inspection of chemists' dispensing apparatus during the past quarter to the Finance and General Purposes Committee of the Dover Town Council, Mr. R. Stocks (local inspector of weights and measures) said that, out of 517 weights tested, only nineteen were found incorrect (against 141 out of 536 during the corresponding quarter of 1950).

Altered Prescription.—At a meeting of the Rotherham Executive Council recently

Mr. A. Buxton (chairman) said that proof had reached the finance committee that a prescription had been altered from $\frac{1}{2}$ lb. of cotton wool to $1\frac{1}{2}$ lb. Speaking of the possibility of prosecution, he warned the persons responsible and "any other offenders." "Buying cotton wool is like buying gold," he said, and pointed out that a great responsibility was placed upon the dispensing chemist.

Test Prescription and its Outcome.—At a hearing at Walsall at which the Pharmaceutical Committee recommended the withholding of £2 2s. from a chemists' remuneration for failing to exercise sufficient care in dispensing, the Committee was told that when the girl dispenser heard she had made an error in putting up a test prescription, she had fainted and had to receive attention from her doctor for more than a month. A sample of the test prescription was found on analysis to have 15.8 per cent. too much of one constituent and 38.4 per cent. too little of another. The chemist said his dispenser must inadvertently have picked up the wrong weights.

East Metropolitan Branch.—The fourth annual summer event of the East Metropolitan Branch of the Pharmaceutical Society held on July 26 commenced with a walk through Epping Forest, followed by tea at Buckhurst Hill. Later, at the same place, members heard an address entitled "The Government threat to Resale Price Maintenance," by Mr. D. W. Payn (assistant secretary, Proprietary Articles Trade Association). Mr. Payn outlined the events leading to the present critical situation of the P.A.T.A., and described the steps taken and about to be taken, to combat the Government's proposals. The chairman (Mr. J. Reed) referred to his personal experience of the "cut throat" conditions in pharmacy prior to the formation of the P.A.T.A., and members promised to do all in their power to assist the P.A.T.A. in its campaign.

SPORT

Golf.—MANCHESTER GOLFERS, at Denton Golf Club, on August 1, competition for Kerfoot trophy and prize was won by H. Brindle, 72.

OUTINGS

Trip to London.—Workpeople and staff of Fred Hurtley, Ltd., Keighley, Yorks, visited the Festival of Britain, London, for their annual outing. Accompanied by Mr. Fred Hurtley (managing director) they visited the South Bank exhibition and Battersea Park Pleasure Garden, and made a sightseeing tour of London.

IRISH NEWS

Wages in Ulster.—The wage of unqualified assistants in Northern Ireland rises to £6 5s. in the fourth year after completion of apprenticeship, and not as previously stated.

Northern Ireland Health Services.—A letter was recently received by the Northern Ireland Health Services Board containing a hospital's recommendations for treatment of chronic eczema. These were considered to be excessive, and it was stated that the Board was already in communication with the Hospitals Authority on the subject of prescribing by hospital staffs. Another letter was received from a doctor inquiring if a new proprietary preparation (Vegolysin tablets, used for the treatment of blood pressure) was likely to be included in the list of excluded drugs which may be ordered by dispensing doctors on prescription forms. The doctor had been informed that the list, which was recently amended, did not as a rule include proprietary preparations. After discussion the Committee agreed that the doctor should be further informed that this matter was one for discussion between the profession and the Ministry of Health and Local Government.

OVERSEAS NEWS

U.S. Chemical Conference.—About 250 European chemists from Marshall Plan countries are to attend a world chemical conference to be held in New York from September 3 to 13.

Pharmacy in British Columbia.—The Pharmaceutical Association of the Province of British Columbia has published recently an eighty-four page booklet "Pharmacy Through Sixty Years in British Columbia," to commemorate the Association's diamond jubilee. The publication includes articles on pharmaceutical history with particular reference to the Province.

Indonesian Pharmaceutical Supplies.—Centralisation of the purchase and distribution of medicines and pharmaceutical supplies is part of the social policy of the Indonesian government, serving to impede black-market practices. The government is to control the appointment of medical and other personnel in an effort to overcome shortages of particular skills. A part of a new public health programme efforts are to be made to stimulate research work.

TOPICAL REFLECTIONS

Present Questions

Most people in pharmacy or associated with it have, I hope, read the section headed "What chemists are thinking" in your issue of August 11 (pp. 187-89). I have long held that there are in every part of the country chemists who can express themselves on current questions as aptly as the finest of our orators can; these five interviews recorded at Southend-on-Sea confirm this opinion. The chief topics thus dealt with are the threatened ban on price maintenance, the National Health Service, election to the Council of the Pharmaceutical Society, and pharmaceutical education. The threat to price maintenance (or price regulation, as it was called at Southend) was emphatically condemned by Mr. Sydney F. Body, Mr. W. H. Pile and Mr. Charles W. Bruce. Mr. Pile made an important point—the upsetting of prices of goods on which purchase tax has been paid, values having been fixed by the authorities. Such goods would number hundreds and might reach four figures. As Mr. Body indicated, a tremendous fight against this injustice must be put up. National Health Service contracts received qualified approval from our of the chemists referred to; Mr. E. Bunting added that "own prescribing was coming back slowly," the explanation being that customers were getting tired of wasting time in doctors' surgeries. Both he and Mr. Body expressed a desire for a stronger line to be taken by the committee negotiating for chemist contractors with the Ministry of Health.

Election and Education

The subject of election to the Council of the Pharmaceutical Society was mentioned by four of the Southend speakers. Territorial representation was advocated by Mr. Bunting and Mr. Lionel Smedley; Mr. Body touched upon the matter with the remark that a Council elected on that basis would not necessarily be ideal; Mr. Pile had refrained from voting, explaining that he knew nothing about the candidates. Education was discussed in three instances, and in all three the chemists were critical of the educational policy of the Society, expressing the view that the standards now adopted were too high. I am not sure what Mr. Body meant by his statement that "the higher grades of qualification could introduce a class of 'controllers,'

of mostly feminine unqualified staff." It seems to me that newly qualified people who have done exceptionally well in their examination for a university degree or for the higher diploma of the Pharmaceutical Society enter the laboratories of manufacturing houses in preference to seeking a career in a shop; and I think this view is confirmed by recent lists of British Pharmaceutical Conference papers. Mr. Smedley thought he might be described as "a rebel of pharmacy": he may be assured that there is room in pharmacy for intelligent rebels, and that without them progress would be fitful or absent. A hint to these objectors and to others who agree with them seems appropriate. John Bull may be a phlegmatic old man; but when he realises that competitors are getting ahead of him, he determines to do something about it. The pharmaceutical neighbours nearest to us intellectually, the French and the Americans, have high educational standards. Regarding the French this fact emerged clearly at the recent Franco-British Congress at Brighton; the American standards can be found in current publications.

Advertising Dispensing

Has the Council of the Pharmaceutical Society considered those who will read its latest pronouncement (p. 192) on advertising of dispensing? This document extends, on a rough estimate, to about 900 words: I suggest that about ninety words would have been sufficient for what is there set down. Put simply, the statement gives the information that (1) the wording of the amending paragraph on the subject is ambiguous; (2) the use of the description "Dispensing Chemist" in advertisements has not been regarded as contravening that paragraph; (3) it has never been suggested that the use of a title on letter headings and so forth constitutes advertising; (4) the Council is considering "a complete recasting" of the paragraph. If my analysis, comprising (according to my count) fifty-seven words, is adequate, this, the introduction and the amended paragraph are all that anyone needs: the rest is "leather and prunella." One recognises that a certain dignity may fittingly characterise communications from the Council to its electors; but life is short, and the perusal of lengthy explanations is wearisome.

Xrayser

NEW COMPANIES

WILLIAM COX & SON (CHEMISTS), LTD. (P.C.)—Registered in Edinburgh, March 29. Capital £6,000. To carry on the business of retail chemists and druggists, etc. William Cox, M.P.S., and Alexander G. Cox, M.P.S., directors. R.O.: 44 Dockhead Street, Saltcoats.

ALEXANDER TWEDILY, LTD. (P.C.)—Registered in Edinburgh. Capital £7,000. To acquire the business of Alexander Twedily, at 44 Busby Road, Clarkston, Renfrew. Mrs. J. M. Vinson, A. E. Twedily, B.Sc., Sidney T. Ballingall, M.P.S., and Charles H. Vinson, directors.

JOHN BLACK (CHEMISTS), LTD. (P.C.)—Registered in Edinburgh. Capital £5,000. To acquire the business carried on by John Black, M.P.S., 39 Eastwoodmains Road, Giffnock. John Black and Mrs. Mary G. Black, subscribers. First directors are not named.

NOEL WILLIAMS, LTD. (P.C.)—Capital £3,000. To acquire the business of a chemist and optician carried on by Wm. G. N. Williams as Noel Williams. Wm. G. N. Williams, M.P.S., and Gwendoline M. Williams, directors. R.O.: 15 Station Road, Shirehampton, Bristol.

HOWARD LLOYD & CO. (IRELAND), LTD. (P.C.)—Registered in Dublin. Capital £1,000. To carry on the business of manufacturers of and dealers in chemical and other toilet preparations and articles, etc. Richard McIlhagga and Ellis Standing, directors. R.O.: 46 Upper Drumcondra Road, Dublin.

NORTHERN SUPPLY SERVICES, LTD. (P.C.)—Registered in Belfast. Capital £1,000. To carry on the business of manufacturers of and dealers in certain medical preparations, etc. T. B. Girvan, 7 Donegall Square West, Belfast, and Margaret M. Hamilton, subscribers. First directors are not named.

SCIENTIFIC MOULDINGS, LTD. (P.C.)—Capital £100. To carry on the business of manufacturers and distributors of scientific modelling and moulding for educational, medical, botanical and other purposes, etc. Dr. George Blaine, 38 Overton Road, Sutton, Surrey, and Gary S. Ryan, 3 Radnor Avenue, Harrow, Middlesex, directors. Solicitors: G. S. Ryan, 12 Grosvenor Street, London, W.1. R.O.: Same address.

M. ALACHOUZOS, LTD. (P.C.)—Capital £1,000. To carry on the business of im-

porters and exporters of and wholesa- and retail dealers in toilet and industri- sponges; synthetic sponges, rubber and rubber goods, etc. Michael Alachouzos 46 Upper Grosvenor Street, London, W. and Leo Grahame, 46A Finsbury Square London, E.C.2, subscribers. Michael Alachouzos, first director. R.O.: 47 Wils Street, London, E.C.2.

Company News

DISTILLERS CO. (BIOCHEMICALS), LTD. Mr. Ernest Gill, M.Sc. (Tech.) has been appointed a director. Mr. Gill has had fifteen years' service elsewhere in the D.C.L. group.

STEPHEN SMITH & CO., LTD.—Net profit for the year ended April 30 £17,900. A payment of 15 per cent. on ordinary shares is recommended and £46,790 is carried forward to next account.

ASPRO, LTD.—Gross profit for the year ended March 31 is £991,154 again £780,376 for the previous year. Net profit attributable to the parent company £280,869 and a final dividend of 20 per cent. on ordinary stock making 35 per cent. for the year is proposed (same Reserves are appropriated £234,46 (£180,332).

BUSINESS CHANGES

HOUGH, HOSEASON & CO., LTD., Levenshulme, Manchester, 19, have appointed Mr. H. Black their representative for South Lancs, Cheshire and Staffs.

TRACEY BLAGDEN, LTD., 7 Gracechurch Street, London, E.C.3 are moving to Swithin's House, 30-37 Walbrook, London, E.C.4, on August 27.

MR. H. C. GARNER (a representative of Reckitt & Colman, Ltd., Hull) has been transferred to Northern Ireland from the company's south-west territory. His address will be Newlands, 33 Barnett's Road, Knock, Belfast.

PARKE, DAVIS & CO. have appointed Mr. R. E. Bowman, B.Sc., Ph.D., director of chemical research. He will be assisted by Mr. D. S. Morris, B.Sc., Ph.D., senior research chemist, who is to join the company. Mr. E. N. Morgan, Ph.D., B.Pharm has been appointed research chemist. The following are also to be appointed to the research team:—Messrs. D. D. Evans, B.Sc., Ph.D.; J. F. Cavalla, B.Sc., Ph.D. and D. E. Ames, B.Sc., Ph.D.

SCIENCE PAPERS AT THE CONFERENCE

TITLES and authors of the papers to be read at the Science Sessions of the eighty-eighth meeting of the British Pharmaceutical Conference, Harrogate, are:—

Tuesday Morning, September 11

1. BACTERIAL SURVIVAL IN SYSTEMS OF LOW MOISTURE CONTENT. PART III. BACTERIA IN FIXED OILS AND FATS. SECTION 1. VIABLE COUNTS OF MICRO-ORGANISMS IN FIXED OILS AND FATS. K. Bullock and Miss W. G. Keepe.

2. BACTERIAL SURVIVAL IN SYSTEMS OF LOW MOISTURE CONTENT. PART III. OILS AND FATS. SECTION 2. EFFECT OF STORAGE AND BACTERICIDES ON VIABILITY. K. Bullock and Miss W. G. Keepe.

3. THE USE OF ANTISEPTICS IN THE STERILISATION OF SOLUTIONS FOR INJECTION. PART II: THE EFFICIENCY OF PHENYLMERCURIC NITRATE. J. E. Davison.

4. CHANGES OCCURRING IN SOLUTIONS FOR INJECTION CONTAINING PROCAINE HYDROCHLORIDE AND DEXTROSE. J. S. Cannell.

Tuesday Afternoon, September 11

5. THE STABILITY OF PENICILLIN SOLUTIONS AT NORMAL AND HIGHER TEMPERATURES. C. E. Coulthard, R. Fawcett, D. G. Lewis and G. Sykes.

6. STERILE PHARMACEUTICAL PREPARATIONS OF PROTEOLYTIC ENZYMES FOR CLINICAL USE IN DENTAL PRACTICE. DRY POWDERS AND SOLUTIONS CONTAINING A BACTERICIDE. K. Bullock and J. K. Sen.

7. TABLETS OF GLYCERYL TRINITRATE. D. Stephenson and J. F. Humphreys-Jones.

8. A STUDY OF THE DISINTEGRATION RATES OF COATED TABLETS. W. R. Howard.

9. THE EVOLUTION OF HYDROGEN SULPHIDE IN SYRUPS CONTAINING HYPOPHOSPHOROUS ACID. H. K. Johnson and W. H. Stephenson.

10. THE SEPARATION OF ALKALOIDS BY PARTITION PAPER CHROMATOGRAPHY WITH SPECIAL REFERENCE TO THE SOLANACEOUS AND ERGOT WATER INSOLUBLE ALKALOIDS. Brindle, J. E. Carless and H. B. Goodhead.

11. THE COLORIMETRIC DETERMINATION OF MORPHINE AND DIAMORPHINE. R. L. Stephens.

12. THE DETERMINATION OF PHENOXONE. W. H. C. Shaw and J. P. Fferris.

Thursday Morning, September 13

13. THE STANDARDISATION OF THE DIGESTION PROCESS IN THE KJELDAHL DETERMINATION OF NITROGEN. G. Middleton and R. E. Stuckey.

14. THE SPECTROPHOTOMETRIC DETERMINATION OF DIMETHYLTUBOCURARINE AND TUBOCURARINE. R. V. Swann.

15. INSULIN AND RELATED TOPICS. PART I. SOME OBSERVATIONS ON THE CAUSATION OF DERMAL REACTIONS BY INSULIN. W. S. M. Grieve, V. Petrow and Miss A. C. M. de Rosario.

16. AN *in vivo* TEST FOR THE HYPERGLYCAEMIC FACTOR IN INSULIN. Miss J. M. Lesford and H. R. Rowlinson.

17. THE ASSAY OF INSULIN *in vitro* BY FIBRIL FORMATION AND PRECIPITATION. G. E. Foster, Miss J. Macdonald and J. V. Smart.

Friday Afternoon, September 14

18. THE DETERMINATION OF CYANIDES IN SEEDS. F. Wokes and S. G. Willmott.

19. VEGETABLE PURGATIVES CONTAINING ANTHRACENE DERIVATIVES. PART V. A THIRD ACTIVE GLYCOSIDE OF SENNA. J. W. Fairbairn and M. R. I. Saleh.

20. THE QUANTITATIVE DETERMINATION OF INSECT INFESTATION IN POWDERED VEGETABLE DRUGS. C. Melville.

21. VEINLET TERMINATION NUMBER. A NEW CHARACTER FOR THE DIFFERENTIATION OF LEAVES. J. P. Hall and C. Melville.

Symposium Session

Friday Morning, September 14

The subject for discussion will be:—PHARMACEUTICAL FORMULATION.

Mr. C. J. Eastland will read a paper entitled "Some Aspects of Modern Formulation." The discussion will be opened by Messrs. D. W. Hudson, W. Nixon and W. Swallow.

Duplicated copies of the science papers listed above, including Mr. Eastland's paper to be read at the Symposium Session, will be available a few days before the Conference. Members who are attending the Conference and who would like to receive copies of the papers are asked to communicate with the Secretaries, 17 Bloomsbury Square, London, W.C.1, enumerating those papers in which they are specially interested. Applications must be received not later than August 24.

BIRTHS

McCULLAGH.—On July 29, to Pat, wife of Robert McCullagh, M.P.S.N.I., 25 Great George's Street, Warrenpoint, co. Down, Northern Ireland, a son.

MARRIAGES

MOAR — **JOHNSTONE.** — At Dornoch Cathedral, Sutherland, on July 26, Albert Anderson Moar, M.P.S., 5 Magdala Crescent, Edinburgh, 12, to Rhona Elizabeth Ross Johnstone, M.P.S., Woodgate, Dornoch.

COX — **YOUNG.** — At Glenalmond, Perth, on August 3, Ronald Ian Cox, B.Sc., to Elizabeth Catherine Young, M.P.S., 7 Kellie Place, Alloa, Clackmannans.

DEATHS

CRAVEN. — On July 4, Mr. Arthur Craven, M.P.S., 15 Lister Grove, Heysham Road, Morecambe, Lancs. Mr. Craven qualified in 1904.

JONES. — At The Briars, Llandilo, Carmarthens, recently, Mr. William Alfred Jones, M.P.S. Mr. Jones, who was in business in Rhosmaen Street, Llandilo, qualified in 1923.

JORDAN. — Recently, Mr. Percy George Jordan, M.P.S., 50 High Street, Grays, Essex. Mr. Jordan, who qualified in 1910, leaves a widow and two daughters.

MAXWELL. — At Hangchow, China, on August 10, James Laidlaw Maxwell, C.B.E., M.B., B.S. (for many years a leading authority on leprosy in the Far East), aged seventy-eight. Educated at University College School, London, and St. Bartholomew's Hospital, Dr. Maxwell went to the Far East in 1901 and saw much and varied service before becoming Professor of Medicine at Chekiang Provincial Medical College and medical superintendent of the Kwang-Chi leper home and village, Hangchow.

POMFRET. — On July 10, Mr. John Pomfret, M.P.S., 314 Bolton Road, Blackburn, Lancs, aged fifty-nine.

WARNER. — On July 25, Mr. Bertrand Thomas Warner, Ph.C., 30 Oxford Road, Carshalton, Surrey. Mr. Warner qualified as a chemist and druggist in 1918 and as a pharmaceutical chemist a year later.

WILSON. — On April 21, Mr. James Ramsay Thomson Wilson, M.P.S., 2 Inchester Mansions, Abingdon Road, Kensington, London, W.8. Mr. Wilson qualified in 1931.

PERSONALITIES

MR. T. A. BRIGHAM, M.P.S. (a former chairman of Bebington and Wirral Chemists' Association and managing director of E. B. Brigham & Sons (1934), Ltd., dispensing chemists), has been elected president of the Birkenhead and Wirral Pharmacists' Association. After apprenticeship with his father, Mr. Brigham qualified from the Liverpool School of Pharmacy in 1930.

MR. H. E. COOPER, M.P.S., has resigned from the managing directorship of R. J. Reuter Co., Ltd., Slough, after forty-three years' service with the company.

Educated at Kettering Grammar School, and apprenticed to Henry Hitchman & Son, Kettering, he qualified in 1897. Before joining Reuters in 1908 as a representative he had experience with Robert Drane, Cardiff; Fletcher & Palmer, Cheltenham; Clare & Hunt Scarborough; Henry Jeffries, Guildford; and Hardcastle, Brighton, and experience of representative work with Burroughs Wellcome & Co. In 1913 he was promoted general manager, and on Mr. Reuter's decease in 1929, managing director. Mr. Cooper is a past master of Victoria Lodge of Freemasons, Windsor, member of the Christopher Wren Chapter, Windsor, and of the Royal Warrant Holders Lodge, and is past provincial grand assistant director of ceremonies for Berkshire. He is a Liveryman of the City of London (Worshipful Company of Gardeners), Freeman of the City of London, and a member of the City Livery Club.



WILLS

MR. R. G. SHAW, M.P.S., 93 Dewsbury Road, Leeds, left £2,832 (£2,653 net).

MR. OWEN ALBERT MILLS, M.P.S., 190 Brickwell Avenue, Hull, left £504.

MR. P. CALWAY, M.P.S., 21 Kidbrooke Lane, Eltham, London, S.E.9, left £328.

MISS N. TAIT, M.P.S., Commercial Road, Ladybank, Fife, left £7,313.

NEW N.H.S. TERMS AND METHOD OF PAYMENT

THE Ministry of Health has sent a circular dated August 10 to Executive Councils stating that the Minister has approved, after consultation with the Central National Health Service (Chemist Contractors) Committee an alteration in the terms of service for chemists, as follows:—
Oncost: A 25 per cent. oncost allowance to be paid from May 1, 1950 in place of the provisional rate of oncost allowance in operation from that date.

Dispensing Fee: An additional penny per prescription to be paid on all prescriptions dispensed from May 1, 1950.

Steps to be taken

To give effect to the provisions, the following steps are to be taken. A payment is to be made to each chemist-contractor calculated as follows:—

(a) 7.75 per cent. of the total ingredient costs as certified by the pricing office on prescriptions dispensed in May 1950, and all later months for which final settlement has been made by August 31, 1951, including any months for which cheques have been prepared but not despatched. A table is given to be used for calculations, and it is pointed out by way of example that the amount payable on total ingredients cost of £466 12s. 4d. (rounded to £466 10s. od.) = £35 13s. od. + 9s. 4d. + 9d. = £36 3s. 1d.

(b) 5 per cent. of the total of the normal payments on account made on prescriptions dispensed in the months November 1950, to July 1951, inclusive. All supplementary advances, additional specially authorised advances made to individual contractors, rota payments, and payments for specially expensive drugs, etc., are to be excluded from the calculation.

(c) One penny for each prescription dispensed in the months May 1950, to July 1951, inclusive. The calculation is to be based on the aggregate number of prescriptions in the certified accounts for the months at (a) and the declared number for all subsequent months.

The Council are to make such adjustment as may be necessary in the amounts calculated under (b) above, and under (c) in so far as they relate to the unpriced months, where it appears to them that over-payment to a particular contractor might result.

The payments are directed to be made with the normal payment on account in

September. A payment on the basis set out at paragraph (c) above should be made to each contractor for the supply of appliances only, on certified accounts, for the months May 1950, to June 1951, inclusive.

The total ingredient costs on certified accounts for chemist-contractors received from the pricing office up to and including those for prescriptions dispensed in October 1950, but not paid by August 31, 1951, are to be adjusted in accordance with the table supplied to Executive Councils, before settlement is made.

An increase in accordance with the scale given below is to be made to the payment on account to a chemist (not being a contractor for the supply of appliances only) in respect of each prescription dispensed in August 1951.

Present average cost per prescription for payment on account purposes*	Increase per prescription
(i) 1s. 9d. to 2s. 8d.	2d.
(ii) 2s. 9d. to 3s. 10d.	3d.
(iii) 3s. 11d. to 5s.	4d.
(iv) 5s. 1d. to 6s.	5d.
(v) 6s. 1d. and over	6d.

* viz., 90 per cent. of the chemists' May 1950, average total cost per prescription, increased by 5 per cent.—rounded up or down to the nearest penny.

Instructions on payment on account for prescriptions dispensed in September 1951 and future months are to be issued later. A notice (E.C.N.78) explaining the alteration in terms and the steps being taken to give effect to them is being issued to each chemist and supplier of appliances only, and dispensing doctor in the National Health Service. Copies of the circular are being sent to Pharmaceutical Committees.

MICROBIOLOGY CONGRESS

An international congress of microbiological chemistry held in Rome recently was attended by many specialists in the field of antibiotics, including Dr. A. R. Miles (National Institute of Medical Research, Mill Hill), Professor D. Wood (University of Oxford), Professor E. B. Chain (one of the pioneer workers on penicillin) and Dr. S. Waksman (discoverer of streptomycin). The congress was concerned chiefly with means of arresting bacterial developments. Two delegates from Stockholm referred to a new antibiotic, protaprin, of bacterial origin, claimed to show activity against the tubercle bacillus, though preparations so far tested had been too toxic.

TRADE NOTES

Ordering for Winter.—Warrick Bros., Ltd., 4 Nile Street, City Road, London, N.1, advise chemists to lay in stocks early for the winter of their pastilles and other products. Details of the pastilles are given on another page.

All-fabric Dyes.—Fairy Dyes, Ltd., announce on another page the discovery of a new all-fabric Fairy tints and dyes. The sole distributors to the pharmaceutical trade are Fassett & Johnson, Ltd., 86 Clerkenwell Road, London, E.C.2.

Supplies of Pastilles.—Rodmill Chemical Co., Ltd., 49 St. Anne Street, Liverpool 3, are supplying Gee's linctus pastilles, packed in 1 oz. printed packets and 2 oz. printed tins. They are exempt from purchase tax.

New Factory Acquired.—Wincolmlee Foundry, Ltd., Baston House, Beverley Road, Hull, have purchased another factory in Hull to cope with the increasing demand they are experiencing for reconditioned machinery for home and overseas and repairs to plant in Great Britain.

Height-of-season Bonus Offer.—T. J. Smith & Nephew, Ltd., Neptune Street, Hull, announce that all orders for elasto-plast first-aid dressings received between July 30 and August 31 will enjoy a special display discount of 5 per cent. in addition to the usual 2½ per cent. quantity discount.

Change of Strength.—The British Drug Houses, Ltd., Graham Street, City Road, London, N.1, announce that they have increased the concentration of penicillin ointment, B.D.H., and penicillin lozenges, B.D.H., to 1,000 international units per gm. of ointment or per lozenge. Both products are now made with crystalline penicillin potassium salt instead of penicillin calcium salt as hitherto.

New Products and Packs.—THE BRITISH DRUG HOUSES, LTD., Graham Street, City Road, London, N.1, have introduced tablets of ethinyl oestradiol 0.01 mgm. and methyl testosterone 3 mgm. under the name Mepilin for the treatment of menopausal disorders.—SOUTHON LABORATORIES, LTD., 84 Upper Richmond Road, London, S.W.15, are issuing Esoban cream of calamine in a new handy pack.—ROCHE PRODUCTS, LTD., Welwyn Garden City, Herts, state that Protovite drops are now available in 16 fl. oz. bottles.

Multiple-head Dry Shaver.—A new electric shaver, the Contour Six, manufactured by Remington Rand, Ltd., 1 Nev Oxford Street, London, W.C.1, is fitted with three multiple heads, giving six shaving surfaces which are set on an arc allowing a greatly increased area of skin to be covered. The shaver is powered by a high-speed silent motor, working at 8,500 revolutions a minute, and is self-lubricating. It is fitted with a suppressor to prevent undue radio interference, and is finished in grey.

Blood Plasma Substitute.—Pharmaceutical Specialities (May & Baker), Ltd. Dagenham, announce the introduction of Plasmosan brand polyvinylpyrrolidone solution, a synthetic substitute for blood plasma suitable for use in any condition in which the natural product is indicated. Plasmosan has a viscosity and tonicity similar to those of blood, and exerts colloidal osmotic pressure approximately equal to that of the plasma proteins. Physically compatible with blood and plasma in all proportions, it is ready for immediate use. It is issued in cartons containing four 540 c.c. standard British transfusion bottles.

Purchase Tax Changes.—ABBOTT LABORATORIES, LTD., 3 Wadsworth Road, Perivale, Middlesex, Paradiione; Sorlat 0.5 gm. capsules; Sorlate liquid, exempt from August 6.—THE BRITISH DRUG HOUSES, LTD., Graham Street, City Road, London, N.1, Mepilin, exempt from August 6.—BRITISH SCHERING, LTD., 229 Kensington High Street, London, W.8 Malidone capsules 0.3 gm.; Mercazol tablets 0.5 mgm. and 2.0 mgm.; and Orasceron tablets exempt from August 6.—ROUSSEL LABORATORIES, LTD., 84 Harrow Road, London, N.W.10, Amenor one exempt.

Service to Managements.—Service offered to its members by the BRITISH INSTITUTE OF MANAGEMENT, 17 Hill Street, London, W.1, include a regular monthly publication, handbooks on modern methods, a library, meetings and conferences, a register of consultants, and educational schemes. Membership is (a) corporate (industrial and commercial concerns, trade and employers associations, trade unions, etc.) or (b) individual, on a graded scale of annual subscriptions.—The research and information department of the WALLACE ATTWOOD Co., Chantrey House, Eccleston Street, London, S.W.1, ha

produced a 16-page brochure, "The Total View—a Study of Management Consultancy at Work," giving details of the services offered by the company in organisation, product design, marketing, production, administration and the engagement and training of personnel.

Four-vitamin Tablets.—Glaxo Laboratories, Ltd., Greenford, Middlesex, are offering in Nicorbin the major factors of



the vitamin B complex (vitamin B₁, nicotinic acid and riboflavin) with added vitamin C. Nicorbin tablets (bottles of 100) are available in parcels of one doz., enclosed in a board sleeve over which a three-colour display card fits, the whole being overwrapped with cellulose film.

PROPRIETARY ARTICLES TRADE ASSOCIATION

(I.R.P.=inclusive retail price)

Alterations to Protected List (Part 1)

Product.	Doz.	Tax	I.R.P.
	s. d.	%	s. d.
<i>Genatosan, Ltd.</i>			
Genasprin brand tablets, 10's	5 6	33½	0 10
28's	11 6	33½	1 9
50's	18 0	33½	2 9
100's	31 6	33½	4 10

Additions and Alterations to Protected List (Part 2)

Silvikrin Laboratories, Ltd.

Silvikrin soapless powder	shampoo	4 9	33½	0 8
	liquid shampoo	10 9	33½	1 6
£3 orders through wholesalers:		19s.	5d.	and 2s. 7d. per doz.

Whitaker & Co. (Kendal), Ltd.

Luton straw-hat dyes	13 6	Nil	1 6
	18 0	Nil	2 0

Wright, Layman & Umney, Ltd.

Wright's coal tar lather	shaving cream	15 0	33½	2 2

Deletions (Part 2)

Tattoo Cosmetics, Ltd.

Tattoo lipstick, refill, small and medium, Tattoo	ream mascara, 2s. 6d., and Nailcote.

Jackel & Co., Ltd.

Jackel's hair cream and Oilafix hair cream.

Sigal & Co., Ltd.

Galgado hair preparations.

PRICE CHANGES

Allen & Hanburys, Ltd.

	Doz.	Tax	I.R.P.
Penicillin lozenges, A. & H., 1,000 units per lozenge			
Tube of 20	12 0		1 6
50	22 0		2 9
(dispensing size) 500	120 0		
Penicillin ointment, A. & H., 1,000 units per gm.			
Tube of ½-oz.	12 0		1 6
1-oz.	15 4		1 11
2-oz.	26 0		3 3
(dispensing size) 1-lb.	312 0		

Benger Laboratories, Ltd. (from August 13).

Cardophylin tablets:

	Each	Tax	I.R.P.
Tube of 20	1 9		
100	7 9		
250	19 0		
1,000	64 9		
5,000	314 6		

The British Drug Houses, Ltd.

Mersalyl, B.D.H.:

6 x 1 ml	2 10	4 3
12 x 1 ml	5 4	8 0
25 x 1 ml	9 4	14 0
6 x 2 ml	3 4	5 0
12 x 2 ml	6 4	9 6
25 x 2 ml	11 6	17 3

Pond's Extract Co., Ltd. (from August 15).

Pond's vanishing cream, cold cream, and liquefy-

ing cream: jar, small		
medium		
large		
cold cream, extra large		
vanishing cream and		
cold cream: tube, small		
large		
face powder, small		
medium		
large		
lipsticks, small		
large		
hand lotion and skin		
freshener, small		
medium		
talcum powder		
4-oz.		

Stemco, Ltd. (from August 1).

	Doz.	Tax	I.R.P.
Nujol:			
8-oz.	13 0	4 4	2 0

16-oz.	22 0	7 4	3 4½
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Cream of Nujol and Cream			
of Nujol with phenol-			
phthalein, 16-oz.	32 0	10 8	4 8

Mistol and Mistol with			
ephedrine:			
½-oz.	11 0	3 8	1 8½

2-oz.	22 0	7 4	3 4½
6-oz.	16 0	5 4	2 5½

16-oz.	31 0	10 4	4 9
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Moore Medicinal Products, Ltd. (from August 6).

Doz. Tax I.R.P.

Brovon elixir		
4 fl. oz.	50 6	Nil
	6 0	

Brovon tablets		
25	29 6	Nil
100	101 0	Nil

Metheph tablets		
25	25 0	Nil
100	82 0	Nil

Brovon elixir, 20 fl. oz.		
	16 3	

Brovon tablets, 500		
	32 4	

Metheph tablets, 500		
	27 3	

NATIONAL PHARMACEUTICAL UNION

MEETINGS of the Executive of the National Pharmaceutical Union and of the directors of the Chemists' Defence Association were held in London, on July 24 and 25, Mr. P. Varley in the chair. The chairman extended a welcome to Mr. Stearn upon his return from South Africa.

Z Reservists

In his report upon work undertaken since the previous meeting, THE SECRETARY referred to discussions he had had with a secretary of the Pharmaceutical Society concerning deferment arrangements for pharmacists coming within "Z" class Army Reserve. He also reported that the Board of Trade was to examine the question of reinstating statutory price control on certain goods, including surgical dressings and asking for information on the proportion of surgical dressings sold over the counter to those supplied on N.H.S. prescriptions. Several members of the Executive undertook to provide such information from their own businesses.

Reports of meetings of the Accounts, Business Services and Publications and Price List Committees held on the previous day were received. Arising out of the report of the Accounts Committee, it was resolved to make an annual donation to the Church of St. George the Martyr, Queen Square, London, W.C.1.

It was resolved to support the constituent organisations of the Fair Prices Defence Committee in their opposition of the Government's legislative proposals on resale price maintenance as being injurious, unnecessary and unjust. The proposals submitted by the Fair Prices Defence Committee were approved and adopted.

A report of a meeting of the C.F. Council held on July 5 was received.

The Local Organisations Officer submitted his report upon work undertaken since the previous meeting of the committee. A proposal to inaugurate during the coming autumn a Keighley and West Yorkshire Branch of the N.P.U. was confirmed. The relatively low attendance in the past at many meetings of N.P.U. Branches at which members of the Executive were speakers was considered, and it was resolved:

"That when members of the Executive Committee or officers of the N.P.U. are asked to address local Branch meetings where the attendance is likely to be small, arrangements be made,

whenever possible, to call the meeting as an 'ar meeting' and to invite members of surrounding branches to attend."

Consideration was given to the proposal of the Ministry of Health regarding National Health Service remuneration to be put before the conference of representatives of pharmaceutical committees to be held on the following day, and also to reply received from the Ministry of Health dealing with the effect of the dispensing fee award in Scotland, the container allowance position and the question of reference of any dispute to arbitration after March 31, 1952. Arrangements were made to hold a special meeting of the Central N.H.S. Committee to deal with matters arising out of any decision taken at the Conference.

Commons Debate on Payments

THE SECRETARY gave a brief report upon the debate in the House of Commons on N.H.S. payments and reported that the number of prescriptions dispensed in England and Wales during June 1951 was 17,075,000, against 16,610,000 in June 1950. The Ministry's proposals for method of dealing with arrears of pricing had not been received.

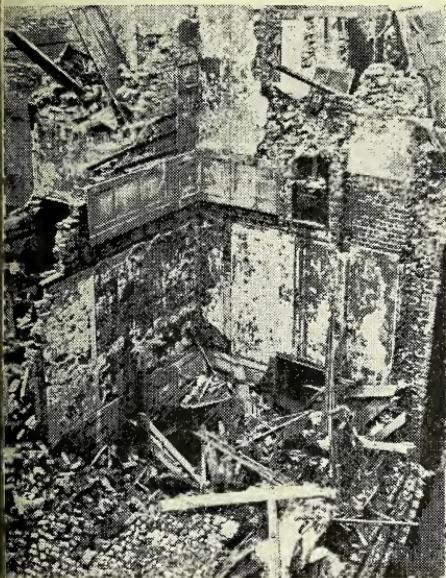
Resolutions regarding prescribing on the same form EC10 for more than one member of the family and omitting a statement of age were discussed. It was resolved to take up those matters with the Ministry.

In reply to a question, THE SECRETARY stated that representation had been made to the Ministry that the wording regarding free containers should be removed from the back of forms EC10.

Applied Pharmacy.—Odd uses to which some West African natives put commonplace commodities are listed in a statistic and economic review published by the United Africa Company. They include a hair-cream which in some parts of the Gold Coast is "spread on bread and eaten with great relish." Carbolic soap became surprisingly popular after someone, by chance, used it as fish bait and found it was irresistible to one type of fish. A perfume is used to impregnate a lump of sugar, which is regarded as a delectable sweet and surgical rubber tubing is used as a bicycle guard to prevent the native long robes getting entangled in the front and rear wheels of their bicycles. *Morning Advertiser.*

A NEW HOME AFTER TEN YEARS OF MAKESHIFT

ONE morning at the height of the blitz on London in 1941 the staff of Thos. Christy & Co., Ltd., reported for duty as usual at Old Swan Lane, London, E.C.4, but found that the offices and warehouses



What remained of the company's headquarters after an air raid on the City of London in May 1941. The building, though damaged, had survived two previous raids and stock was arranged in readiness to be "evacuated" when the final blitz occurred.

had become a victim during the night. Now, after ten years of work in makeshift premises, a new factory has been built on ground at Aldershot acquired by the company several years ago. Production is once more in full swing.

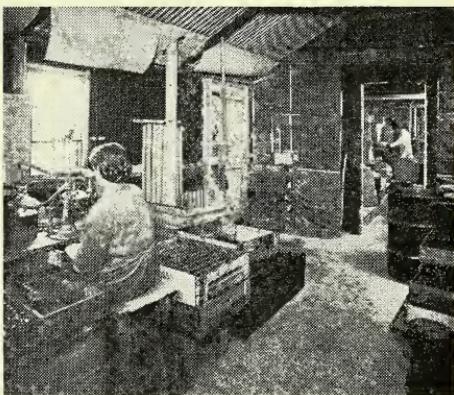
How the Departments are Arranged

The whole factory is on one floor, and is designed so that the order and invoice

departments are in close proximity to the stockrooms and dispatch department, which, in turn, have direct access from the factory. Heating for the building and steam raising for the pans is oil fired and thermostatically controlled. Wherever possible, automatic machines and conveyor belts have been installed.

Half a million cachets are filled and packed every week. A machine of new design, worked by one operator, can fill and cap upwards of 20,000 cachets in eight hours. Other machines fill cachets only, the capping being conducted in a separate operation.

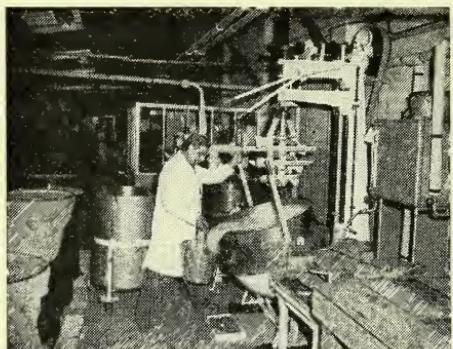
Toilet Lanoline, a speciality of the company, is mixed (half a ton at a time) in a huge stainless steel mixing container. When ready, the Lanoline passes to a machine which fills it into tubes or jars, and the filled containers pass along a conveyor belt to where they are labelled and cartoned. A somewhat similar method is employed for Musterole, the jars of which, when filled, pass through a cooling duct for about six minutes to solidify the product.



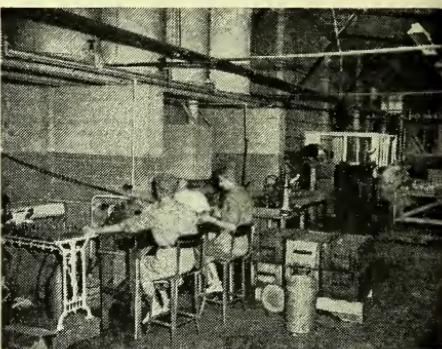
Extemporised filling rooms (shown above) had to be used in the temporary headquarters at Farnham.



Farm buildings at Farnham, Surrey, occupied when the London premises had to be abandoned.



Mixing Lanoline Emulsion.



Filling and packing Musterole.



Invoice and accounts department in the new premises.



Sealing tubes of Lanoline.

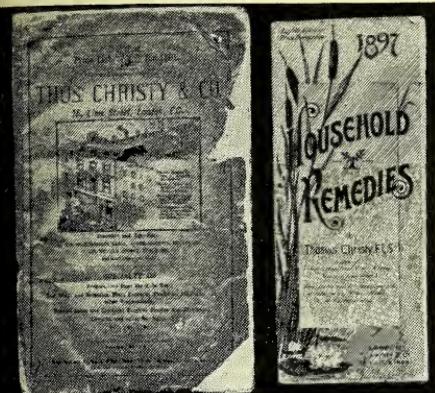


Goods assembled for dispatch.

and extract the fumes. In the production of Glyco-Thymoline, the ingredients are mixed for six to eight hours by means of an electric high-speed mixer. Afterwards the solution is allowed to mature for two weeks before filtering. Toilet preparations produced—apart from Lanoline—include bulk supplies of face powder, lipstick,

solidified Cologne, beauty creams, Christy's Emulsion, Zepto pencils, Per-De-Co, etc.

In 1941, when furniture had to be bought, conventional type office furniture was practically unobtainable. The company therefore bought period pieces which show to advantage in their new setting. To form a link with Old Swan Lane, one of the



A price list issued in 1891 and a sales booklet brought out by Thomas Christy in 1897.

original charred beams from the premises was retained: it now stretches across the boardroom.

Plans for the future provide for a further wing to be added as soon as a building licence is issued.

History

Thomas Christy, who founded the business in 1860, was a keen botanist and a fellow of the Linnean Society. He travelled extensively abroad and brought back many rare drugs which he found in use by natives of the Territories he visited. His interest in botanicals led him to open premises at Fenchurch Street, London, as an importer of spices, drugs, and rare plants. He was, in fact, the first to introduce kola nuts to England, and among the earliest to import menthol, cocaine, and fine tea tips. The business was subsequently transferred to Lime Street and in 1900 to Old Swan Lane and Swan Lane. The headquarters survived two air attacks before their final destruction by fire on May 10, 1941. Temporary accommodation was in some farm buildings at Farnham, Surrey, and there a nucleus of seventeen members of the staff commenced the laborious task of replacing the stocks that had been lost, themselves living in the barn. In four to five weeks after the bombing the first product was restocked. Other preparations had, however, to be made, and it was necessary to take additional space wherever it could be found. Between 1941 and 1943 no less than fourteen different premises, ranging from cow sheds to an oasthouse, were in use simultaneously.

C. & D. RETAIL AND DISPENSING PRICE LIST

The following changes, which took place during July, should be noted. The drug index for the month is 205.8.

Cost.	Item	4 oz.	1 oz.	1 dr.
		s. d.	s. d.	s. d.
72 lb.	Acet. cantharidini S.1.(5)	2 8	0 9	0 1 ½
69 lb.	Acid. benzoic ..	2 5	0 8	0 2
159 4 oz.	Acid. <i>p</i> -amino-salicylic ..	—	5 8	0 10
186 dr.	Atropina S.1.(4)	per gr.	0 7 ½	
246 dr.	Atropin. methonitras S.1.(4)	per gr.	0 10	
168 dr.	Atropin. sulphas S.1.(4)	per gr.	0 6 ½	
113 4 oz.	Balsam. Peruvian ..	—	4 0	0 7
451 lb.	Bismuthi carbonas ..	16 2	4 6	0 8
398 lb.	Bismuthi subnitras ..	14 2	4 0	0 7
272 dr.	Cocaina S.1. D.D. ..	per gr.	0 11	
252 dr.	Cocaina hydrochlor. S.1. D.D. ..	per gr.	0 10	
72 oz.	Chrysarobinum ..	—	—	1 9
63 lb.	Collod. acetum ..	1 10	0 6	0 1
39 lb.	Cupri sulphas ..	1 5	0 5	0 1
90 lb.	Conf. sennaeatsulphuris ..	3 3	0 11	0 2
192 4 oz.	Ext. ergotæ liq. S.1.(5)	—	6 10	1 0
17 gr.	Homatropina ..	5 grs.	7 4	2 6
14 gr.	Homatropin hydrochlor. S.1.(4)	5 grs.	6 2	per gr. 2 0
62 lb.	Lin. methyl. salicyl. ..	2 6	0 9	0 1 ½
24 lb.	Mist. sennæ co. ..	1 0	0 3 ½	—
51 lb.	Liq. bismuthi et am. cit. ..	1 11	0 7	0 1 ½
96 lb.	Magnes. oxid. pond. ..	3 5	0 11	0 2
50 oz.	Ol. cajuput ..	—	—	1 2
51 lb.	Potass. tartras acid. ..	1 10	0 6	0 1
90 lb.	Pulv. bismuthi. co. B.P.C. ..	3 3	0 11	0 2
54 lb.	Sennæ fruct. Tinnev. No. 1 ..	2 0	0 7	0 1
45 lb.	Syr. glycerophosph. co. P.I. (9 and 13) ..	2 0	0 7	0 1
159 lb.	Tr. zingiberis fort. ..	4 10	1 4	0 2 ½
43 lb.	Ung. hydragr. ammon. P.I. (9) ..	1 6	0 5	0 1
36 lb.	Ung. acid. boric. ..	1 4	0 5	0 1
63 lb.	Ung. zinci et ol. ricini B.P.C.'34 ..	2 4	0 8	0 1
39 lb.	Ung. zinci oxid. ..	1 5	0 5	0 1
52 oz.	Viola crystallina ..	—	—	1 3

TABLETS

Cost	Item	Selling Price	
		25 s. d.	100 s. d.
264 1000	Aspirin (2½) Phenac (2½) et Caffein (1) ..	1 9	4 6
198 1000	Aspirin Co. B.P.C. ..	1 6	3 6
213 1000	Caffein. citras gr. 2 ..	1 6	3 9
330 1000	Codein. co. P.I. (9) ..	1 10	6 0
120 500	Ethinyl. estradiol 0.02 mgm. ..	2 3	5 3

BIOLOGICALS

	Strength	Cost		Selling Price s. d.
		d.	per	
Penicillin troch. ..	1000 units	12	20	1 6
Penicillin troch. ..	1000 units	22	50	2 9
Penicilliu unguent ..	1000 units	15½	1 oz.	1 11

BURROUGH'SNo licence
now required.**S.V.R.**

James Burrough Ltd., 1 Cale Distillery, London, S.E.11

TRAGACANTH

SPECIALISTS IN B.P. POWDER
 SAMPLES AND PRICES ON REQUEST
FREUDENTHEIL, SMITH & CO., 16 Philpot Lane,
 London, E.C.3
MANSION House 1924 & 6600 **Estd. 1826**

Quality
ASPIRIN
TABLETS
IN BULK OR PACKED

The WALLIS LABORATORY Ltd
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BLYTON ASTLEY & CO., LTD.

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More recently, much further clinical experience in this country, on the Continent and in Canada, has demonstrated the very high value of F "99" in the treatment of furunculosis. The normal time for complete cessation and healing of the outbreak is two to three months. Eczematous furunculosis also proves amenable to treatment with F "99".

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NOTE: There is no equivalent of F "99" in the National Formulary, nor is it advertised in the Press.

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A Not-much-further Report

In tone, the "Further Report on the Man-power Situation" (p. 223), issued by the Council of the Pharmaceutical Society in readiness for the Branch Representatives' meeting at Harrogate on September 12, is serious without any sense of urgency, and philosophical rather than enthusiastic. One might say it is lacking in horse-power.

In the somewhat prolonged delay that has occurred since the previous report was issued, the acuteness of the problem has perhaps subsided. At all events, that is the inference drawn by the author(s) of the report from the entire lack of response to the suggestion made at the September 1950 Branch Representatives' meeting, that branches should try and ascertain the position in their own localities. "Little has been heard during recent months about a man-power shortage except in the case of occurs," states the report, and "it appears that interest in the man-power question has declined." Use is even made of the silence to cast doubt on some earlier findings ("It is by no means certain that all those who stated they needed additional staff would in fact engage it if available").

Perhaps for that reason the writer of the report has, without much fear of challenge, reached conclusions that are rather more definite than may be justified on existing evidence which he admits is incomplete and which is, in one direction, to be the subject of a new inquiry. Is it not, for instance, rather dogmatic at this stage to say that "Factors affecting it [pharmaceu-

tical work under the National Health Service] will tend to cause a decline"; "the supply of medicines outside the National Health Service is not likely to increase"; and "there appears to be no potential source of work to add largely to the volume of work undertaken by pharmacists"? All the statements may be proved accurate by events, but are they based on actual evidence or, as we are inclined to think, speculative, and tainted with defeatism?

The main conclusion—that "no case can be made out for a substantial increase in the size of the register"—could in our view have been reached without the elaborate and long-drawn-out inquiry that has taken place. If nothing more concrete is to be expected the new inquiry, as to whether changes should be made to secure more efficient use of pharmacists' services, may as well be abandoned forthwith.

Conclusions about keeping pharmacists longer as assistants may not be welcome. So far as they imply a damper upon enterprise they are to be opposed. So far as they predicate higher salaries for assistants, they are mere pious resolutions, since no machinery for raising wages is remotely within the control of the Society.

Like a bashful youth, the author seems to have been thrown into confusion by the mere thought of women-power, and in dealing with this aspect writes far below clarity. In trying to give an intelligible summary of the report, we have therefore had no option but to omit the following passage:

"If, therefore, a substantially greater population of women than men are not working as pharmacists, any factors tending to cause married women pharmacists to continue in or resume pharmaceutical employment will alter the significance of the size of the register from the point of view of the extent to which it represents a working population. The higher the proportion of women on the register the greater will be the potentialities for change in this respect, and so far counter balancing the effect which a higher proportion would otherwise have in reducing the working population."

Possibly the most valuable part of the report is that which deals with hospitals and industry. With the co-operation of the Guild of Public Pharmacists and the Association of British Pharmaceutical Industry the Council has elicited some useful facts and it is now possible to present some

sort of picture, albeit with gaps, of the whole field. The knowledge that industry could accommodate another two hundred pharmacists of the right kind should act as a spur to the younger qualified to widen their experience, since it may be assumed that industry could readily have attracted its men from the retail, if candidates with the requisite experience were forthcoming.

There remains much to find out about pharmaceutical man-power, and the present conclusions should by no means be accepted as final.

Manpower in Northern Ireland

THE picture drawn by the "Further Report on the Manpower Situation" of the Pharmaceutical Society of Great Britain probably reflects the position in Northern Ireland. There, no serious shortage of pharmacists exists and the number of persons who qualify annually appears to meet the needs of the profession. It is felt, however, that the tendency, as implied in the British report, is for more pharmacies to be opened than are necessary. That the number of persons qualifying is at about the right level is illustrated by the fact that pharmacists continue to take advantage of the reciprocity agreement to find employment in Great Britain.

Doctors and Sweet Medicine

THE advantages and potential dangers of flavoured medicines—a matter which was discussed by a number of pharmaceutical experts in these columns recently (see *C. & D.*, 1950, II., pp. 621 and 686) is commented upon from the doctors' point of view in the "British Medical Journal," 1951, II., 226. While not denying that medicines, particularly those for children, should be as pleasant as possible, it is pointed out that danger lies in the fact that potent chemotherapeutic substances are being presented in that form and with many of those preparations there is only a small margin of safety between the therapeutic and toxic dose. Pointing out that in Britain alone there were at least ten different flavoured sulphonamide suspensions, that four antihistaminics, codeine, phenobarbitone, amidone, Myanesin, penta-

methonium, and stilbœstrol are available as syrups or elixirs, and that a long list of substances and combinations of substances are put up as sugar-coated tablets, looking to children, no doubt, like sweets, the question is put as to whether many doctors know how far the flavouring trend has gone in Britain. The sources of risk, it is pointed out, arise not merely from an enterprising child taking an overdose, but from a doctor not emphasising sufficiently, or the mother or nurse no heeding the doctors' instruction that the prescribed dose must not be exceeded or any account. If the doctor has any doubt he is recommended to order a plain table or mixture.

Hospital Pay Consolidated

To enable "a more solid legal foundation" to be given to national rates of pay and other conditions of service in hospital within the National Health Service—which is the purpose, the Ministry of Health explains, of the newly made regulations of remuneration and conditions of service (see p. 202)—the Minister has consolidated his position in a number of respects. It is now clear, for example, that he is able to approve rates of pay and conditions of service which have been negotiated by a negotiating body, and that he is also able to authorise a Regional Hospital Board or Hospital Management Committee to vary that remuneration, etc., in certain cases. That there is no intention to digress from the established negotiating path is indicated by the Ministry's explanatory statement which asserts that the new regulations do not "in any way" supersede the work of the Whitley Councils, and that the Councils are to continue to "conduct negotiations and to make recommendations to the Ministry on remuneration and conditions of service which can be applied nationally within the National Health Service." Among the first uses which the Minister intends to make of the regulations is to issue an approval of all the current negotiated rates of remuneration. Pharmacists who are paid above the approved rates should have no cause to speculate as to the fate of their salaries who are subject to a "no detriment clause."

HYALURONIDASE—THE "SPREADING FACTOR"

by R. Powell, B.M., B.Ch. (Evans Medical Supplies, Ltd)

IN 1928 Duran-Reynals noted that an aqueous extract of mammalian testicle added to intradermal vaccinia virus inoculation produced an unexpectedly widespread lesion. He called this testicular extract the "spreading or diffusing factor." At first his observations appeared to be purely of academic interest but later, when the original observations had been confirmed by other workers, and a similar factor was found to be present in spermatozoa, skin, ciliary body and iris, snake venoms, leeches, malignant tissue extracts and filtrates of cultures of certain pathogenic bacteria, considerable medical interest was stimulated. It was not until several years later that the "spreading factor" was identified as hyaluronidase, a naturally occurring mucolytic enzyme which produces a physical change in the ground substance of body tissues, rendering it less viscous and more permeable.

In 1939 Chain and Duthie showed that the enzyme exerted its effect by breaking down hyaluronic acid, a mucopolysaccharide, which in loose combination with protein is present in mesenchymal tissue, particularly in synovial fluid, umbilical cord, vitreous humour and skin. This acid formed from glucuronic and N-acetylgalactosamine units is now regarded as the scous "tissue cement" or "ground substance" of the connective tissue spaces. Hyaluronidase apparently attacks either galactosaminidic or anhydride linkages, thus using a depolymerisation of hyaluronic acid and considerably reducing viscosity and increasing tissue permeability and spread." The clinical potentialities of this enzyme have of recent years become more and more widely appreciated and in certain hospitals the use of hyaluronidase for clysis has become a routine procedure.

hypodermoclysis

Subcutaneous administration of fluid is painful, time-consuming and the administered fluid is generally absorbed at a slow rate. Whilst there is no direct evidence that hyaluronidase affects capillary permeability, by virtue of its "spreading activity," hyaluronidase enables fluid to be more easily dispersed in the subcutaneous tissues, drawing the injected fluid into contact with a large number of absorptive channels. This not only enables fluid to be

given and absorbed rapidly but also avoids the pain caused by local tissue tension. Hyaluronidase is thus becoming more and more widely used for assisting hypodermoclysis and it is of course of particular value where fluids have to be administered parenterally to children. In particular, it affords a ready means of avoiding "cutting down" on veins where difficulty is found in obtaining a suitable superficial blood vessel for intravenous infusion. The difficulties and disadvantages of intravenous infusions may be partially or wholly avoided and the nursing care made considerably easier. It will be found of particular value for the subcutaneous administration of fluids in severe dehydration fever of the new-born, pyloric stenosis and gastro-enteritis and in other cases where there are technical difficulties in giving intravenous fluids. It may, however, be found that in very severely dehydrated patients, it is necessary to give a preliminary intravenous infusion to restore the circulatory volume before hypodermoclysis can be effectively augmented with hyaluronidase. To exert its spreading effect the enzyme requires the presence of a localised increase of interstitial volume and pressure and it has been noted that the more rapidly fluid is given the more effective is the hyaluronidase. With a potent preparation of the enzyme up to 300 ml. of fluid may be administered in five minutes.

Local Infiltration Anesthesia

The use of hyaluronidase as an aid to local infiltration anaesthesia has met with considerable success. The enzyme has been used in combination with procaine in dental procedures and it is reported that nerve blocks are easier to obtain and the anaesthesia more widespread and absolute with the aid of hyaluronidase. Again, it has been successfully used with procaine in the treatment of fibrositis, and in the reduction of Colles' and other fractures. In America a procaine-hyaluronidase adrenaline mixture has been favourably reported upon for inducing a pudendal block for delivery and post-partum repair, and hyaluronidase has also been found of considerable assistance when given with an anaesthetic agent in inducing splanchnic, paravertebral and inguinal hernia blocks. Where the use of hyaluronidase in com-

bination with potentially toxic agents such as cocaine is contemplated, it should be borne in mind that, whilst increasing the spread of action of local anaesthetic agents, the enzyme will also increase the rate of absorption of such agents into the blood stream. This latter effect is considerably diminished if a vaso-pressor drug is given at the same time, without interfering with the spreading action of the enzyme.

Experience is being gained rapidly on the value of hyaluronidase in increasing the speed of absorption of other fluids injected subcutaneously. Good reports have appeared on its use in assisting the absorption of x-ray contrast media, penicillin (particularly from the nasal cavity in the therapy of diseased antra and sinuses), sulphonamide drugs, etc. In addition, it has been shown to be of value in the histological staining of tissue sections. The value of the enzyme in the treatment of infertility is still open to question.

Safety

When an enzyme with such a powerful diffusing action is employed clinically in the presence of localised infection it might well be thought that there would be risk of spreading the infection. Such, however, is not found to occur. Hechter, Sanella and others have reported that hyaluronidase in no way enhances the spread of a localised infection and there is no evidence that hyaluronidase is contra-indicated where such a localised infection is present. The explanation lies in the fact that hyaluronidase injected into normal skin diffuses round but not through an area of skin containing a fibrin barrier, the enzyme diffusing in the path of least resistance.

Purified hyaluronidase seems to be essentially non-toxic. Apart from early reports of non-specific transient protein reactions in a few isolated cases, no toxic reactions have been reported when many times the therapeutic dose of hyaluronidase has been injected. Jaworski and Farley found that, on hyaluronidase administration, no changes were observed in the blood picture or chemistry, urine, results of liver function tests, electrocardiogram, or blood heparinoid activity. No local reactions were observed and intradermal tests for sensitivity on a total of 150 patients were all negative. Absence of toxicity has been confirmed by numerous other workers, but it is the practice in most commercial laboratories to inject large quantities of the enzyme intravenously and subcutaneously

into experimental animals to confirm complete absence of toxicity before the product is released for sale.

Potency

At present it is difficult to formulate a comprehensive dosage schedule for hyaluronidase, as commercial preparations on the market vary appreciably, both in purity and activity. There is little doubt that factors of quantity and quality of the preparations used will explain contradictory observations on the effects of hyaluronidase which are frequently found in the published literature. In addition, the activity of the enzyme is dependent to some extent on the constitution of the connective tissue and individual patient response may vary. There is urgent need of a standard method of assay and for standard preparations.

A number of different assay methods have been used either *in vivo* or *in vitro*.

In vivo tests are based on the diffusion enhancing property of hyaluronidase so that the range of distribution of injected materials such as India ink or diluted diphtheria toxin may be measured.

In vitro tests are based either on chemical or physicochemical reactions. Chemically, either the reducing group, or the acetylglucosamine liberated by the action of hyaluronidase on hyaluronic acid may be measured. Alternatively, alterations in the viscosity or turbidity of substrate solutions may be measured. A further test, the "mucin clot prevention test," makes use of the property of hyaluronidase of preventing the formation of a typical mucin clot when acetic acid is added to a substrate protein complex.

All of these tests are subject to considerable variation according to the temperature, pH and other conditions under which the test is performed. More recent Evans, Perkins and Gaisford ("Lancet, 1951, 1, 1253) have described a method of assaying the potency of hyaluronidase preparations by determining the quantity neutralised by a standard amount of specific anti-hyaluronidase.

The majority of commercial preparations of hyaluronidase will be found to show the weight of the enzyme presented in mgm and in some cases turbidity reducing units (TRU) or viscosity reducing units (VRU) may also be indicated. These units, however, are probably not strictly comparable with one another as the results of activity determinations are dependent upon the local laboratory test conditions.

CORRESPONDENCE

Letters may be sent for publication under an assumed name, but the correspondent must furnish his real name and address to the Editor

Welcome to Harrogate

SIR,—It gives me the greatest pleasure to learn that the British Pharmaceutical Conference is to be held in Harrogate this year and I can assure the delegates of the warmest welcome from the Civic authorities. We are justly proud of our town, situated as it is in the heart of the most beautiful Yorkshire countryside, and I am sure your delegates will readily agree that Harrogate is eminently suited to a conference of this kind. Harrogate, being one of the leading spa resorts in the country, is closely allied with the work of your profession and although the first task of the Conference will be to debate the more practical problems connected with your work I hope your delegates will take the opportunity of acquainting themselves with our town. The Mayoress and myself look forward to meeting many of your delegates.

Harrogate. NORMAN A. FOSTER.
Mayor of Harrogate.

Sale of Contraceptives

SIR,—In your issue of July 21 (p. 65) you refer to a statement by the Council of the Pharmaceutical Society with regard to the sale of contraceptives by pharmacists. The Society has expressed the opinion that "the only satisfactory course is for no indication either direct or indirect to be given at any pharmacy that contraceptives are sold there." My Committee regard this as most unfortunate. The Royal Commission on Population said that "public policy should assume and seek to encourage the spread of voluntary parenthood." The Commission also found that "the great majority of married couples nowadays practise some form of birth control in order to limit their families," and that if mechanical methods of contraception were not available "other means would be used, and some of them, e.g., criminal abortion, the prevalence of which is even now distressingly high, are very undesirable." There can be no doubt that there is a large demand for reliable contraceptives by married couples; if this demand is not met by pharmacists it will be met in other and much less satisfactory ways. Without making any exaggerated advertisement or display it should be possible for pharmacists to indicate that they

can supply contraceptives, and thus follow the public policy recommended by the Royal Commission.

IRENE M. JAMES, *Secretary.*
Family Planning Association.
London, S.W.1.

An "Intermediate" Pitfall

SIR,—May I congratulate you on publishing "Educational Information" (C. & D., August 4, p. 151). This type of comprehensive survey of the ways and means to enter the medical and allied professions is invaluable to the young person about to embark upon his or her career. I note with much regret, however, in "Steps in Becoming a Pharmacist," p. 151, that the B.Pharm. examination is not mentioned by name and is only referred to once in the last paragraph. I feel strongly about this because I have known many a misguided pharmacist who has had to end up by taking a Ph.C. purely through realising too late that he or she had the wrong Intermediate to enable him or her to take a B.Pharm. Similarly I have known many pharmacists who have had to go right back and take the University Intermediate before proceeding for another degree. I feel that, in information of the type published, it is essential to point out the limitations of the Society's Intermediate, or conversely to point out that, with a University Intermediate science pass, exemption from both Intermediate pharmacy and first M.B. is gained, and that other science degrees may be undertaken without going back to the Intermediate stage first. I would also like to see mention of the B.Pharm. qualifying examination together with the syllabus and list of colleges at which it can be taken.

ELIZABETH BRASTED, B.Pharm., Ph.C.
London, N.21.

[The title "pharmacist" is restricted under the Pharmacy and Poisons Act, 1933, to members of the Pharmaceutical Society. Holders of the B.Pharm. degree are not, as such, pharmacists. We had no space for the B.Pharm. syllabus but gave details (p. 157) of colleges offering degree courses and (p. 151) details of how passing an intermediate degree examination may exempt from the Society's Intermediate. For the rest we endorse Miss Brasted's warning.—[EDITOR.]

MEDICINAL HERB FARMING IN IRELAND

SOME years ago Mr. C. O'Connor, M.P.S.I. (lecturer in botany and *materia medica* to the Pharmaceutical Society of Ireland), began growing medicinal herbs on a farm at Leixlip co. Kildare, about ten miles from Dublin. The experiment justified Mr. O'Connor's belief that the Irish soil and climate could produce successfully many of the medicinal plants in general use. In the past six years the project has grown out of the experimental stage and a company (Christopher O'Connor & Co.) among the partners of which are a number of Dublin pharmacists, is carrying on extended cultivation of plants on a commercial basis. The company's *materia medica* farm at St. Catherine's, Leixlip, the first of its kind in Eire, is now harvesting crops of belladonna, mint, hyoscyamus, stramonium and digitalis, while experimental plantations of lavender, aconite, chamomile, and elecampane have been laid down under Mr. O'Connor's direction.



Mr. C. O'Connor (left) and others examining the 1951 belladonna crop.

A fine crop of belladonna just harvested contained an average of 0.65 per cent. of alkaloid. The 1950 belladonna crop found good markets in Britain and Canada, with the result that the acreage under that plant was considerably increased. Drying is carried out in a disused chapel. The whole farmstead has historic associations with the Irish patriot Patrick Sarsfield, who was Earl of Lucan, and part of the lands run down to the River Liffey.

Within the past two years Mr. O'Connor has been experimenting with growing lavender, *Mentha Piperita* and black mint, with a view to producing high quality oil of lavender, menthol and spearmint. Vari-

eties of lavender and mint brought in from different parts of the world were used in the trials, and the analysis of the oils extracted from the Leixlip grown plants was "excellent." The reports on mint yields in particular, were so good that the United States Economic Co-operation officer in Dublin have become interested, since a big potential market is now available for spearmint in the United States. If the Department of Agriculture in Dublin is prepared to co-operate with the Leixlip *materia medica* farm and to encourage Irish small farmers to grow the variety of black mint required the American organisation is prepared to supply technical assistance and portable stills for distillation of the oil. Beyond hand weeding the crop calls for no great labour. The matter is now under consideration by the Department of Agriculture in Dublin. A paper on the prospects of herb farming in Ireland read by Mr. O'Connor at the seventieth anniversary conference of the Pharmaceutical Society of Ireland attracted much attention at the time, and led up to the present American interest. Students from the Society's college are given an opportunity by Mr. O'Connor to have social and educational outings to the farm.

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Liverpool Association and Branches.—*President*, Mr. J. P. Murphy; *Vice-president*, Mr. L. A. Butt; *Secretary*, M. H. W. Cottle, 12 Beacon Lane, Liverpool 5; *Treasurer*, Mr. E. C. Bourne.—[Corrected note.]

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FURTHER REPORT ON MAN-POWER

At the meeting of Branch Representatives' of the Pharmaceutical Society on September 6, 1950, the Council presented a report on the man-power situation. It was suggested that the report should be examined by the branches, which should try and ascertain what was the position in their localities. No such reports have been received by the Council, which has prepared a further report which is being presented at the Branch Representatives' meeting on September 12. The report is concerned with the numbers required for maintaining the register, the man-power needs of pharmacies, hospitals and industry, and the policies to be adopted. The main features of the report are given below.

Maintenance of the Register

Work done since the previous report has led to the conclusion that about 700 newly qualified pharmacists are required annually to maintain a register of 25,600 (the composition of the register at the end of 1949). Assuming that 80 per cent. of students eventually qualify, the required annual intake of students is about 875. That annual intake is not at present necessary, as the register was considerably smaller when the bulk of the persons now being removed annually through deaths or retirement became pharmacists. Since the war, removals have averaged about 430 annually. Since 1946, when the number on the register was less by seventy-two than in the previous year there has been a continuous increase in the size of the register as follows:—1947: 4; 1948: 142; 1949: 214; 1950: 230 (including persons who register under reciprocity agreements or as foreign pharmacists). As it is not possible to indicate with accuracy the trend of the number of deaths and retirements in the next few years, it is not possible to predict when the annual number of removals will reach 700. Since the war the rate of death and retirement, though higher than before the war, has not shown an upward trend but has fluctuated around an average of 30. There is no indication that a rapid increase to 700 is likely.

The rates of registrations in recent years, and of deaths and retirements, suggest that an annual increase in the number of persons on the register will continue for some years. The maximum rate of retirement is unlikely to show itself for at least five

years, when persons at present registering as apprentices or students may be expected to qualify. In 1950, such registrations amounted to 861, the highest figure for fifteen years, without taking into account pharmacy students who are training for a degree in pharmacy and have not registered with the Society (a figure probably not less than fifty).

Relative "Life" of Men and Women

In the current year, so far as can be judged, the number of persons registering as apprentices or students or studying pharmacy but not registered, will be at least equal to the 1950 total. If the present rate is continued there should thus be, on the assumption already stated, more than sufficient to maintain the register at the time when deaths and retirements reach the maximum. If the maximum rate of retirements has not set in in five years the increase in the register will be enhanced. So long as the proportion of registered persons who are actually engaged in pharmaceutical work does not vary, it is of no importance as affecting the significance attached to the size of the register, but if it is likely to alter the position changes. At present a woman pharmacist remains on the register for a period which is not much shorter than that of a man pharmacist; but whereas the man normally ceases to work only in the later years of his life, marriage causes women to cease working as pharmacists after a shorter average working period. Women on the register number at present about 13 per cent. of the whole. At the end of the war the proportion of women students had increased to more than 50 per cent. of the annual total, but has subsequently been falling, and in 1950 was about 35 per cent. In the past a smaller proportion of women than men students have qualified, and that must be taken into account in considering the effect of the figures on the size of the register. The decline in the proportion of women students may go on, but is unlikely to drop to a level which would ultimately bring about a lowering of the present proportion of women on the register.

The evidence available does not show that there is any substantial increase in the average length of the working life of men pharmacists at the present time as compared with pre-war. On the other hand

there may well be an increase in the average working life of both men and women pharmacists as a result of continual improvement in the average expectation of life.

In connection with the present inquiry no examination has been made of the size of the working population as distinct from the population on the register. On several occasions in past years the Council has endeavoured to collect information showing whether members were employed in pharmacy (and in what branch), employed elsewhere, or retired. It seems important that such information should be obtained annually, so that changes in the movement of pharmacists from one branch of pharmacy to another, and as between work and retirement, should be available, and the Council have decided to institute an annual inquiry to obtain it.

Man-power Needs in Pharmacies

The figures given in the report in 1950 suggested that the stated need for additional pharmacists was about 15 per cent. of the existing number employed in pharmacies, and that the figure was reduced to 7.3 per cent. (real or calculated need) if based upon comparison with the staff employed and work done in businesses which did not say they wanted additional qualified staff. In considering the significance to be attached to those figures the following points appear relevant:—

(1) They are based upon information given in reply to a questionnaire, and it is by no means certain that all those who stated they needed additional staff would in fact engage it if available, even at a cost which they could afford.

(2) Assuming a real shortage of approximately 7 per cent., that is not a serious shortage in terms of the extra work falling upon the pharmacists affected, and there is no evidence that it is causing difficulties in maintaining the pharmaceutical service of the country to an extent which threatens a breakdown. The extra work, if shared by pharmacies as a whole, would hardly be felt. Although since the first report was issued, there has been a heavy winter season for dispensing (owing to the influenza epidemic) little has been heard during recent months about a man-power shortage except in the case of locums.

(3) The concern about a man-power shortage arose at the time of the introduction of the National Health Service, and as the service has settled down and its effect on pharmacy has become clearer it appears that interest in the man-power question has declined.

(4) The fact that since the war the number

of pharmacies has steadily increased and this since the end of 1948, when the National Health Service was introduced, the number of pharmacies has increased by 264, shows that, whatever the shortage of pharmacists may be there is no shortage of pharmacists to act as managers. It may be that less experienced pharmacists are now able to obtain employment as managers than formerly, but apparently they are compete enough to keep going an increasing number of businesses.

No Case for Increase

It is difficult to see that a case can be made out on the basis of the present use of pharmaceutical man-power for a substantial increase in the number of pharmacists (except locums) to be available for employment in pharmacies. If more are available for permanent employment, they will tend to become employed as managers of new pharmacies rather than as assistants to help relieve an overworked proprietor or manager. Thus more pharmacists available for employment in pharmacies would tend to cause diversion of business to newly opened pharmacies rather than increase assistance in existing pharmacies, if as it is reasonable to assume, no substantial increase in pharmaceutical work is to be anticipated. In considering this point the following factors are important:

(a) The amount of work for pharmacies under the National Health Service is nearing, if it has not reached, its peak. The factors affecting it will tend to cause a decline.

(b) The supply of medicines and medical and surgical appliances under the National Health Service represents an average of about 25 per cent. of the turnover of pharmacy. This is a much higher proportion than in the pre-National Health Service days, but its reduction cannot be regarded with indifference. The average number of prescriptions dispensed annually in a pharmacy in England and Wales is about 17,000, and in Scotland 9,000. Those factors should be increased rather than decreased to ensure better use of pharmaceutical resources and a stronger position for the pharmacist.

(c) The supply of medicines and medical and surgical appliances outside the National Health Service is not likely to increase owing to probable decline in purchasing power of the public, decline in population, extension of channels of distribution other than pharmacies, control of proprietary medicines, and education of the public in health matters.

(d) There appears to be no potential source of work to add largely to the volume of work undertaken by pharmacists either in or outside the National Health Service such as doctors' dispensing before the health Service was established).

In these circumstances pharmaceutical resources should be concentrated rather than further spread, particularly as, apart from rare exceptions, the number and disposition of pharmacies at present is more than adequate for the convenience of the public. Present needs and future trends thus point to a policy of organising affairs so that the number of pharmacists engaged permanently in pharmacies is not substantially increased and that conditions are created whereby young pharmacists will be attracted to work in existing pharmacies as assistants rather than to seek employment as managers in or to open new pharmacies.

The difficulties of making adequate arrangements for locums in illness and for holidays are serious. The position has been met in some pharmacies by temporary closings. That method as a permanent alternative to locum arrangements deserves consideration. There would still be a need for locums, and the creation of a centrally organised locum service, though difficult, could be of benefit to pharmacists.

Needs of Hospitals and Industry

Information obtained from the chief pharmacists of 345 hospitals employing 746 pharmacists, showed that in those hospitals the number of pharmacists employed was 178 (15 per cent. below establishment). Taking into account pharmacist locums, dispensing assistants and students would reduce the staff deficiency to 4 per cent. below establishment. An average of 15 per cent. pharmacist staff above establishment was reported as needed to ensure adequate pharmacist staffing, but the hospitals from which returns were received were not a statistical sample. Pharmacists employed in hospitals are estimated at about 1,250. If it is assumed that the stated shortage in hospitals employing pharmacists which did not make returns is proportionately the same as that in the hospitals which did, the total stated shortage amounts to 385 pharmacists. Hospitals not employing pharmacists but which ought to do so are not included in that figure. has not been considered practicable on the information available to determine a criterion for real staff need, and conse-

quently no figure comparable to the calculated need in the section dealing with pharmacies can be stated. Remuneration offered to hospital pharmacists tends to place the hospital service at a disadvantage in recruiting pharmacists as compared with other branches and the real staff need is therefore likely to be relatively higher in hospitals than in pharmacies.

It is suggested that approximately 250 additional pharmacists (i.e., approximately 20 per cent. of the total number of hospital pharmacists) may represent the real need. It amounts to approximately 1.3 per cent. of the total number of pharmacists employed in pharmacies and hospital pharmaceutical departments combined.

An inquiry by the Association of British Pharmaceutical Industry yielded a figure of rather more than 200 as the stated need for additional pharmacists in industry. The deficiency is not so much a question of inability to obtain pharmacists as one of obtaining pharmacists with the necessary experience.

Conclusions

Taking into consideration the needs of pharmacies, hospitals and industry there is evidence that the present available man-power is somewhat below the existing requirements. It is necessary that an increase of the order of that of the past two years should be maintained and a slightly higher increase would probably be in the public interest. This conclusion is based upon the present use of pharmaceutical man-power. Whether changes should be made to secure more efficient use of pharmacists or to give a more efficient service is a matter to be determined as a result of a separate investigation which is being undertaken. It will include a consideration of both qualified and unqualified personnel in relation to the nature and extent of pharmaceutical work.

Waste Paper Necessary to Industry.—The output of packaging material on which the pharmaceutical and every other industry depends is slowing down. Many manufacturers are already feeling the pinch. In 1950 the total amount of waste paper salvaged and returned to the mills for re-pulping was 847,055 tons, whereas the total consumption was 887,082 tons. This year the rate of consumption has already reached the figure of 1,000,000 tons and more is needed. The deficit has already affected many industries.

THE SULPHUR SHORTAGE AND PHOTOGRAPHY

By Leslie G. Sandys, A.R.P.S., F.R.S.A.

THE current curtailment of sulphur supplies strikes at the heart of professional and amateur photography, for sulphur is used in the manufacture of sodium sulphite and "hypo" (sodium thiosulphate)—two chemicals essential in the preparation of developers and fixing baths respectively.

Since anyone who carries out processing of films and prints is dependent upon supplies of those two chemicals, it is clearly in the interests of the community and the individual to take steps to ensure that solutions which contain them are made to do the utmost work of which they are capable.

Economy in Developers

Amateur photographers should be impressed with the need for careful use of developing solutions. Savings may be effected by "grouping" films for developing, and print and enlargement making, so that a reasonably large batch of work is processed at one time. In that way one quantity of developer can be made to do work that would otherwise use many times the amount of solution. Further economies can be made by using a small dish for prints and by filling developer bottles to the neck and keeping them tightly stoppered to exclude air.

Dealers who have their own photo-finishing workrooms can often effect similar economies, though on a larger scale. With vertical roll-film developing tanks, adequate draining of batches of films as they leave the developer ensures low waste from transfer of developer into the rinse tank. Since the developer is "topped up" as the level falls the replenisher will last longer, and the necessity to make up a new tank will be postponed as long as possible, if the level is maintained by careful draining of the films as they are taken from the bath.

Reducing Hypo Consumption

Photographers who have been accustomed to cheap and plentiful hypo may find it difficult to accustom themselves to care in its use. Until the supply of sulphur improves, however, either economy must be practised or processing facilities may be curtailed. Using a strong hypo solution is however, not the best method of fixing films or prints. The fixing action is completed even in a very weak bath, given sufficient time, provided that the bath is fresh enough to convert the silver compounds

into soluble compounds which can be removed by subsequent washing. Those who use the single bath method of fixing are perhaps without knowing it, wasting considerable amount of hypo, and may not be adequately fixing the material. A hypo bath soon becomes loaded with silver from the material put into it for fixing, and because it will not then take out quite all the silver from subsequent material, the fixing is incomplete; a pint of fixer will not fix adequately more than two dozen $\frac{1}{4}$ -plate prints or their equivalent.

The two-bath method ensures great permanence of films and prints, and at the same time economises in the consumption of hypo. A partly exhausted bath is used for the first fixing, and the material is transferred to a second—and fresher—bath for the final fixing. In its turn the second bath becomes the first, and the original first bath is discarded and a new second bath made up. By this plan a pint of fixer fixes over twelve dozen $\frac{1}{4}$ -plate prints or their equivalent.

FIFTY YEARS AGO

The Council Gag

From the C. & D., August 17, 1901

SIR,—Those of your readers who take interest in the Council of the Pharmaceutical Society will be aware that the minutes of the April meeting state I had given notice of a motion, which the Vice-president ruled out of order because it was an improper one. I do not wish to call special attention to the grossly unfair treatment I have received, except to show how difficult it is for any member of that Council who chooses to think and act for himself to have his views fairly discussed, unless those views happen to coincide with the wishes of the majority, for want of a better phrase, I call the "official party." I claim there was a shadow of excuse for ruling my motion out of order. It would have been open to a member of the Council to have moved that it be discussed in committee, but all discussion was buried, and I was completely gagged by the official statement from the chair that my motion was an improper one. I have struggled all these months to get that word "improper" removed from the minutes, not because I objected to it as an expression of the official party's opinion, but because I wished to remove "the gag," . . .

W. S. GLYN JONES.

NEW BOOKS

Paper Sculpture.—Arthur Sadler. 9½ x 1 in. Pp. 144. 17s. 6d. Second edition. Blandford Press, London. Modelling in paper is demonstrated by means of diagrams and over 160 photographic illustrations, with full details of tools and materials.

Chemicals and Fertilisers.—F. R. King. 8½ x 5½ in. Pp. 16. 3s. 6d. Purchasing Officers' Association, Wardrobe Court, 146A Victoria Street, London, S.C.4. This booklet forms part of the Purchasing Officers' Association's raw material survey series and is intended to cover raw materials for the chemical and fertiliser industries, particularly for the student. A large chart of the principal products of the British Chemical Industry is inserted.

Converting a Business into a Private Company.—Stanley Borrie. Pp. 54. 3s. 6d. Jordan & Sons, Ltd., 116 Chancery Lane, London, W.C.2. First published in 1922, this booklet has now reached its fourteenth (revised) edition. All the advantages of conversion are discussed and the action to be taken "from the time the owner of a business has arrived at the decision to form company until the completion of the transfer of the business to the company" is set out in logical order that is easily followed.

The Sober Truth.—Lincoln Williams, I.R.C.S., L.R.C.P. 7½ x 5 in. Pp. 64. 6s. Edgar Backus, 44 Cank Street, Leicester. The subtitle, "Alcoholic Realities," explains the author's intention, which is to gain acceptance for the idea that alcoholism—"compulsive drinking"—is a disease amenable to treatment (e.g., with vitamin B₁) but only to be overcome by total renunciation, which the victim cannot achieve without the active help and encouragement of others, as in such a body as Alcoholics Anonymous, to which Chapter XI is devoted.

Directory of the Brush and Allied Trades, 1951.—10 x 6 in. Pp. 400. 6s. 6d. to subscribers to "Brushes and Bristle Goods"; 17s. 6d. to non subscribers. Heatland Journals, Ltd., 356 Kilburn High Road, London, N.W.6. This, the fourth edition of the directory, contains any amendments and additions to the entries of individual businesses, their products, trade marks, etc. New features include a telephone-telegram-cable-directory

(on tinted paper for quick reference), a "Who's Who in the Brush Trade" and a classified section of brush-filling materials.

Mercantile Year Book and Directory of Exporters.—Pp. 1,324. 22s. 6d., post free. Lindley-Jones & Brothers, Ltd., 52 Bishopsgate, London, E.C.2. The 1951 edition is divided into four parts. The first part lists export merchants, buying and confirming houses in London, classes of goods they buy and the markets they are interested in. In the second, the exporters are listed under the headings of goods they ship. Merchant exporters outside London are given in part III. In the final section information is given on overseas importers (and their European buying agents).

Glossary of Paint Trade Terms.—H. W. Chatfield, Ph.D., B.Sc., F.R.I.C., A.M.I.Chem.E., 9½ x 6 in. Pp. 199. 30s. Scott, Greenwood & Son, Ltd., 8 Ludgate Broadway, London, E.C.4. This "Glossary of terms used in the Paint, Varnish and Allied trades" is by a well-known consultant and has appeared in serial form in the "Oil and Colour Trades Journal" (now the "Paint, Oil and Colour Journal"). It gives an alphabetical reference guide to terms in use by the trades concerned governing a large number of raw materials, tests, etc. A small error (the confusion of citronella and lemongrass oils) does not detract from the value of the book, which includes information not readily available elsewhere.

The Vitamin-B Complex.—F. A. Robinson, M.Sc., L.L.B., F.R.I.C., 8½ x 5½ in. Pp. 688. £3. Chapman & Hall, 37 Essex Street, London, W.C.2. Believed to be the first book published in Great Britain devoted entirely to the vitamin B complex, the work deals in over 120 pages with aneurine and in an almost equal number, with nicotinic acid. Other chapters are concerned with pyridoxine (pp. 52), pantothenic acid (pp. 56), biotin (pp. 43), folic acid complex (pp. 73), vitamin B₁₂, *p*-aminobenzoic acid, inositol, choline and miscellaneous water-soluble growth factors. Each chapter is sub-divided into sections outlining the history, isolation, estimation, effect of deficiency in man and animals, function, pharmacological action etc. of each vitamin. Comprehensive subject and author indexes are given. The book should prove a valuable work of reference.

TRADE REPORT

Spot quotations for pharmaceutical chemicals represent the prices for wholesale quantities of standard quality. Prices of crude drugs and essential oils vary as to brand or grade.

London, August 15

No price changes have taken place during the week in PHARMACEUTICAL and FINE CHEMICALS. The CRUDE DRUGS market is still quiet owing to holiday influences. A number of drugs showed a firmer tendency, they included SENEGA following a report that there were few offerings of the root from source. Forward offers of prime Cape ALOES are still difficult to obtain. A small business is reported done in Portuguese new-crop ERGOT at 42s. 6d. per lb., c.i.f., but the price is generally considered too high for any volume of trade to materialise. Purchasing of SHELLAC by Russia in India caused a firmness in the Calcutta market but this was only slightly reflected on the London spot market. The SEEDS market continued dull, lower prices being quoted for Dutch CARAWAY.

Although several ESSENTIAL and EXPRESSED OILS were marked down, little interest was shown in the market. Suppliers of Sicilian hand-pressed LEMON at source continue to quote varying prices up to 65s. per lb., c.i.f., whereas stocks can be obtained on the spot for as low as 48s. per lb. Java CITRONELLA, at 13s. per lb., is slightly firmer on the spot. There are still no offers of LIME oil from source.

U.S. Drug and Chemical Report

New York, August 10

AN improvement in the supply of certain chemicals has been noticed, possibly due to the smaller demand during the holiday season. There has been more inquiry for MENTHOL but most consumers are still thought to hold considerable stocks. Although production of CITRIC ACID has increased the supply position is expected to improve only slightly. Prices of a number of CRUDE DRUGS have been reduced because of the arrival of the new-crop and poor general demand. Many consumers are believed to have large stocks which they accumulated some time ago when there were fears of a general shortage. Another factor influencing business is the belief that prices will decline if the Korean war finishes. Trade in CARNAUBA WAX is quiet. Portuguese ERGOT has been reduced during the past week from 9s per lb. to 7s. 5d. There is a poor supply of IPECACUANHA and SENNA PODS. Supplies of Californian ORANGE and LEMON OILS are improving slightly; lemon is quoted at 5s per lb. on the spot.

Pharmaceutical Chemicals

ADRENALINE.—B.P. is nominally from 3s. to 3s. 6d. per gm. for natural and 2s. to 2s. 6d. for synthetic; racemic, 2s. per gm.

AMMONIUM CARBONATE.—Lump is 67s. 6d. per cwt.; powder, 70s. 6d. BICARBONATE 65s. 4d. per cwt.

AMMONIUM CHLORIDE, B.P. — Make quote 1-cwt. lots at 11½d. per lb.

ATROPINE.—Rates per oz. are ALKALOID, 58s. 9d.; 4-oz., 58s. 3d.; 25-oz. 57s. 9d. SULPHATE, 48s. 9d.; 4-oz., 48s. 3d. 25-oz., 47s. 9d. METHYL NITRATE in 4-oz. lots is 78s. 6d. and METHYL BROMIDE 76s. 6d. per oz.

BARBITONE.—Current rates per lb. are 1-cwt. lots, 39s.; 28-lb., 40s.; 7-lb., 41s. THE SODIUM derivative is 1s. per lb. more than the base.

CHLOROFORM.—1-cwt. lots in winches are 3s. 3½d. per lb.; 56-lb., 3s. 4d. drums, prices are 3s. 2d. and 3s. 2½d.

CHLORAL HYDRATE.—1-cwt. lots are no 4s. 11d. per lb.; 28-lb., 5s. 3d. per lb.

CHLOROXYLENOL.—B.P. quality is quoted at 6s. 9d. per lb. for 1-cwt. lots.

CHOLESTEROL.—In 1-kilo lots, price is about 142s.; 10-kilo, 133s. per kilo.

CHRYSAROBIN.—Quotations are from 35s. to 35s. 9d. per lb.

CITRIC ACID.—British makers quote 1s. 9d. to 1s. 11d. per lb. for 5-cwt. lots less 5 per cent.; 1-cwt., 1s. 9½d. to 1s. 11½d. per lb.

CREOSOTE.—B.P. quality, ex beechwood is quoted at from 6s. 9d. to 7s. 6d. per lb.

CRESOL.—Price of B.P. quality from distillers is 5s. 3d. per gall., delivered.

CYCLOBARBITONE.—BASE and CALCIUM DERIVATIVE in 5-kilo lots are 17s. per kilo.

EMETINE SALTS.—Firm. Rates per lb. are as follows:—HYDROCHLORIDE, 32-cwt. lots, 355s.; 16-oz., 358s.; 4-oz., 361s.; oz., 368s. BISMUTH IODIDE, 32-oz., 180s.; 16-oz., 182s.; 4-oz., 184s.; 1-oz., 187s.

ETHER.—Prices of TECHNICAL, B.S. and SOLVENT, B.P., in winches (per lb.) are as follows:—10-cwt. lots, 2s. 5½d.; 5-cwt., 2s. 6½d.; 48-lb., 2s. 7½d.; 24-lb., 2s. 9d. Rates for ANÆSTHETIC, B.P. in winches are:—10-cwt. lots, 3s. 9½d.; 5-cwt., 3s. 10½d.; 1-cwt., 3s. 11½d.; 72-lb. lots, 4s. 0½d.; 36-lb., 4s. 2½d.; 24-lb., 4s. 4½d. In 1-lb. bottles, prices are 2½d.; in ½-lb. bottles, 7½d.; and in ¼-lb. bottles, 1s. 4½d. per lb. more than the above prices. Drums, prices are 1½d. per lb. less than the corresponding winchester prices. Containers are charged and are returnable.

HYDROCYANIC ACID.—B.P.C. (Scheele) is quoted at from 1s. 5½d. per lb. a B.P. at 1s. 1½d. per lb.

ISOPROPYL ALCOHOL.—Prices range from 15s. 3d. to 16s. 9d. per gall., as to quantity.

LACTOSE.—English, in 1-ton lots packed in 2-cwt. kegs, £142 per ton; in 1-cwt. eggs, £143 per ton. In 1-cwt. paper-lined bags, 5s. per cwt. less than the above rates, delivered in the United Kingdom.

LIQUID PARAFFIN.—Price to wholesale distributors for HEAVY, B.P., is £102 7s. 6d. per ton (8s. 1d. per gall.). LIGHT, B.P., £83 7s. 6d. per ton (6s. 5d. per gall.) in 0/45 gall. returnable loaned drums, delivered in the U.K. WHITE and YELLOW OIL PARAFFIN are £97 5s. and £75 1s. per ton, respectively, in non-returnable 3-cwt. drums. HARD PARAFFIN, m.p. 135/140° F., £91; 145/150° F., £110 17s.; and 160/165° F., £125 per ton, in minimum tons ex works.

LITHIUM SALTS.—Current rates for 1-wt. lots are as follows:—CARBONATE, 9s. per lb.; CHLORIDE (commercial), 8s. 6d.; YDROXIDE, 8s. 6d.; CITRATE, 7s.; SULPHATE, 6s. 4d.; SALICYLATE, 8s.

MAGNESIUM HYDROXIDE, B.P.C.—Makers' price for 1-cwt. lots is 3s. 5d. per lb.

MAGNESIUM SULPHATE.—Small crystals 1-ton lots are 23s. per cwt.; 5-cwt. ts, 25s. per cwt.; 1-cwt., 26s. Medium crystals are 2s. 6d. per cwt. extra. Ex-ccated is 54s. 6d. per cwt.

POTASSIUM PERMANGANATE.—Rates for aterial packed in 1-cwt. drums are as llows:—

QUANTITY	B.P., per lb.	TECHNICAL, per cwt.
1 cwt.	1s. 7½d.	172s.
3 cwt.	1s. 7d.	168s.
5 cwt.	1s. 6½d.	163s.
1 ton	1s. 6d.	158s. 6d.
5 tons up.	1s. 5½d.	154s.

1 5-cwt. drums prices are 1s. per cwt. ss than above. Terms: Net, delivered at least railway station in Great Britain; umps charged extra and returnable.

Alcohol

ICES (exclusive of duty) of ethyl alcohol per proof gall. are as follows:—

Plain British Spirit (95 per cent. Gay issac, 66 o.p.); where the number of gall taken over any one year ended December 31 is 300,000 or over the price 4s. 5½d.; 200,000 and less than 300,000, 6d.; 100,000 and less than 200,000, 6½d.; 50,000 and less than 100,000, 7d.; 10,000 and less than 50,000, 7½d.; 2,500 and less than 10,000, 8½d.

Absolute Alcohol, 99.5 per cent., 74.5 o.p., is one penny more per proof gall. than Plain British Spirit; the special high strength (99.9 per cent., 75.2 o.p.) is one penny more. Doubly-rectified Alcohol (V.R.), 95.8 per cent., 68 o.p. is two pence more per proof gall. and P.I. Rectified Alcohol, 96.1 per cent., 68.5 o.p. pence more than Plain British Spirit. P. Absolute Alcohol (re-rectified, 99.7 per cent., 75 o.p.), 14s. per bulk gall. (net).

Crude Drugs

ACONITE.—Spanish *napellus* is nominally 3s. 9d. per lb., duty paid.

AGAR.—Steady. Kobé No. 1 on the spot is quoted at from 9s. per lb., duty paid.

ALOES.—Prime Cape on the spot is quoted at 275s. per cwt.; few forward offers at about 235s., c.i.f.

ANISE (STAR).—September shipment from Hong Kong is 248s., c.i.f., nominal; 290s. per cwt. is asked for supplies in bond London.

BISMUTH.—In minimum 5-cwt. lots metal is now 25s. 9d. per lb.

BLACK HAW.—Tree bark is offered at 3s. 3d. per lb., ex store; for shipment from origin, 3s. 9d., c.i.f., quoted.

BUCHU.—Short round leaves on the spot are offered at 2s. 2d. per lb.; for shipment, 1s. 11d., c.i.f.

CALUMBA.—Natural quoted at 85s. per cwt., spot.

CAMPHOR.—Chinese (B.P.) powder on the spot is from 5s. 4d. per lb., in bond (5s. 10d., duty paid); ½-oz. tablets on the spot are from 6s. 9d. per lb., duty paid.

CAPSICUMS.—Quotations are from 150s. to 225s. per cwt., according to quality, duty paid, on the spot.

CASCARILLA.—Quills on the spot are 1s. 6d. per lb.; siftings, 1s. 4d. per lb.

CHAMOMILE FLOWERS.—Belgian No. 1, 4s. to 4s. 3d.; No. 2, 3s. 6d. per lb., spot, nominal.

CHERRY BARK.—Thin cut natural is quoted at 2s. 3d. and rossed at 2s. 6d. per lb., duty paid, ex warehouse London.

CHILLIES.—Sierra Leone on the spot are quoted at 270s. per cwt.; for shipment, 260s., c.i.f.; East African (Mombasa), 335s., ex warehouse; for shipment, 285s., c.i.f.

CINCHONA.—*Succirubra* chips of East and West African origin testing over 6 per cent. are quoted at 2s. to 5s. 6d. per lb., according to colour and analysis.

COPAIBA BALSAM.—B.P. soluble is offered at 23s. 6d. per lb., duty paid, nominal.

ELEMI.—Scarce. No. 1 on the spot is offered at 3s. 6d. per lb.

ERGOT.—Small business is reported done in Portuguese new-crop at 42s. 6d. per lb., c.i.f., August-September shipment.

EUPHORBIA.—Supplies of the herb are offered at 50s. per cwt., c.i.f.

GALANGAL ROOT.—A parcel for shipment from Hong Kong is quoted at 80s. per cwt., c.i.f.

GAMBOGE.—Siam pipe is £45 per cwt., duty paid, spot London.

GINGER.—African on the spot is 290s. per cwt.; for September shipment, 265s., c.i.f. Jamaican, No. 2, 510s. per cwt. and No. 3, 490s., spot.

GUAIACUM RESIN. — Spot quotations are in the region of 3s. 3d. per lb.

HENNA. — Sudan is 102s. 6d. per cwt. on the spot.

IPECACUANHA. — Firm. Colombian is quoted at 53s. per lb., c.i.f., for shipment. Offers of Nicaraguan for September shipment are from 59s. to 60s. per lb., c.i.f.

KARAYA. — Superior No. 1 gum on the spot is 440s. per cwt.; No. 2, 340s.

KOLA NUTS. — African halves on the spot in London are from 5½d. per lb.; to come forward, 4½d., c.i.f. Jamaican quarters, for shipment, 9d. per lb., c.i.f. London.

KRAMERIA. — Spot is 105s. per cwt., in bend (120s., duty paid).

LANOLIN. — Anhydrous is about £140 to £145 per ton and hydrous, £120 to £125.

LIQUORICE. — Anatolian natural whole root on spot in London is quoted at from 52s. 6d. to 55s. per cwt.; Syrian natural from 47s. 6d. per cwt. Turkish block juice quotations are from 170s. upwards, according to holder, duty paid. Turkish stick is 240s. per cwt., duty paid. Italian stick, 240s. to 475s. per cwt., duty paid.

MACE. — West Indian pale blade is nominal at 9s. 9d. per lb.; for shipment, 9s. 4d., c.i.f.

MALE FERN. — Jugo-Slavian on the spot, is 55s. per cwt.; for shipment, 47s., c.i.f.

MASTIC. — Quotations for tears (No. 2) are from 12s. 6d. per lb., spot.

MENTHOL. — Chinese on the spot is from 85s. per lb., duty paid. Brazilian, on the spot is 83s. to 84s. per lb., duty paid.

NUTMEGS. — West Indian 80's, quoted at 4s. and unassorted at 3s. 10d. per lb., ex-warehouse. East Indian for shipment are quoted at 4s. 9½d. to 4s. 9½d. c.i.f.

ORANGE PEEL. — Firm. Spanish bitter quarters quoted at 1s. 9d. and ribbon at 1s. 6d. per lb., duty paid. West Indian quarters, 1s. 6d. per lb. Tripolitanian thin-cut ribbon, 2s. 2d. per lb.

PAPAIN. — East African No. 1 white on spot is quoted at from 35s. to 38s. per lb.; Ceylon sun-dried on spot is 32s. per lb.

PERU BALSAM. — Little available on the spot. For shipment, 16s. to 17s. per lb., c.i.f., is quoted.

QUASSIA. — Chips on the spot are offered at 30s. per cwt.; for shipment, 28s., c.i.f.

QUILLIAIA. — Whole bark on spot is 150s. to 165s. per cwt.; for shipment, 140s., c.i.f. Cut bark is offered at 190s. per cwt., ex-warehouse.

QUINCE SEED. — Cape on the spot are quoted at 3s. 6d. per lb.

RHUBARB. — Double Deer No. 1 is offered at 10s. per lb., duty paid (9s. 3d. in bond), with other grades of good quality Chinese

rough round at from 7s. to 9s. per 1 duty paid. Shensi, medium-bold, 12s. 6 per lb., in bond.

SABADILLA SEED. — A parcel on the spot is offered at 6s. 3d. per lb., duty paid (5s. 9d. in bond).

SEEDS. — **ANISE.** — Spot Cyprus 162s. 6d. per cwt.; Turkish, 150s. per cwt., in bond and 160s. duty paid. **CARAWAY.** — Market lower; Dutch now offer at 125s. per cwt., duty paid in London.

CELERY. — Indian is unchanged at 1s. 10d. per lb., spot London. **CORIANDER.** — Morocco on spot is offered at 100s. per cwt., duty paid (95s. in bond). Indian is 120s. per cwt., spot London. Morocco is 120s. per cwt., spot London. August and September shipment is quoted at 77s. 6d. per cwt., c.i.f. London.

CUMIN. — Spot cypress is offered at from 235s. 240s. per cwt.; Indian, 230s. per cwt. shipment: Cypress quoting 200s. per cwt. Indian, 190s.; Morocco, 200s., all c.i.f. for August-September shipment.

DILL. — Indian unchanged at 80s. per cwt., spot London. **FENNEL.** — Indian on spot has been selling at 140s. per cwt., and the same price is now asked for shipment. **FENNEL GREEK.** — Morocco is 46s. 6d. per cwt., duty paid, spot London or Liverpool.

SENEGAL. — Spot supplies are about 1' per lb. Forward market is slightly firm from 14s. 6d. to 15s. per lb., c.i.f.

SENNNA. — Tinnevelly wet-crop leaves for September shipment are quoted as follows: — Prime No. 1, 1s. 3½d.; No. prime, 1s. 1½d., and f.a.q., 1s. 0½d.; No. prime, 11½d., f.a.q., 11d.; No. 4, clean 9½d., and f.a.q., 8½d. per lb., c.i.f. Tinnevelly pods are offered at 2s. 2½d. per lb., c.i.f., August-September shipment.

SHELLAC. — Firm. Spot quotations are F.O.T.N., pure, 380s.; F.O. Standard 390s. and fine orange, 405s. to 485s. 1 cwt., ex-London warehouse.

STROPHANTHUS. — *Kombé*, 100 per cent. is quoted at 21s. per lb. on the spot.

STYRAX. — Spot is from 9s. per lb., duty paid, and 8s. 3d. in bond.

TAMARINDS. — Calcutta on the spot 75s. (1 per cent. stones) and 70s. (5 per cent.) per cwt. For shipment, 63s. to 66s. per cwt., c.i.f., is quoted.

TOLU BALSAM. — Natural on spot 45s. to 47s. per lb., and B.P., from 35s. 37s. 6d. per lb. Natural from the origin is quoted at 42s. 6d., c.i.f.

TONKA BEANS. — Frosted Pará are 6s. per lb. spot, and new-crop, 5s. 6d., c.i.f.

TURMERIC. — Madras finger is offered 92s. 6d. per cwt., spot London.

VALERIAN. — Belgian on the spot is quoted at 182s. 6d. per cwt., spot. Indian 160s. per cwt., spot; for shipment, 160s. c.i.f., quoted.

WITCH HAZEL. — Leaves on the spot are quoted at 2s. 9d. per lb. and bark at 1s. 6d. per lb.

Essential and Expressed Oils

ALMOND.—English-expressed is from 6d. to 7s. 6d. per lb. Bitter essential oil (s.a.p.) is from 26s. per lb., upwards, as to grade.

AMBER.—Prices are unchanged. Rectified on the spot is quoted at from 1s. 6d. per lb.

ANISE.—Quiet. Spot quotations are from 1s. 3d. to 12s. per lb.; for shipment, 1s. sellers, c.i.f.

BAY.—Easier. West Indian is quoted from 14s. per lb., as to quantity.

BERGAMOT.—In short supply. Nominal spot quotation is 80s. per lb.

BOIS DE ROSE.—Brazilian on the spot is from 38s. to 39s. per lb., as to quantity.

CADE.—Supplies of Spanish are from 6d. to 3s. per lb.

CANANGA.—Supplies on the spot are quoted at 90s. to 92s. 6d. per lb.

CARAWAY OIL.—English-distilled is offered at 45s.; imported oils in limited supply from 38s. to 40s. per lb., on the spot.

CARDAMOM OIL.—English-distilled is quoted at from 45s. per lb.; imported, from about 45s., duty paid.

CASSIA.—Quiet. Spot supplies are offered from 27s. 6d. to 28s. 6d. per lb.; for shipment, 25s., c.i.f., quoted.

CASTOR.—B.P. oil on the spot is nominally £336 per ton; Firsts, from £330; seconds, £320 per ton naked, ex mill.

CEDARWOOD.—Spot quotations for Kenya from 5s. 6d. per lb.

CINNAMON.—B.P. oil on the spot is quoted at from 67s. 6d. to 70s. per lb. English bark oil is offered at 21s. to 24s. per lb. Ceylon leaf, 16s. 6d. per lb., spot, nominal; for shipment, 12s. 9d., c.i.f.

CITRONELLA.—Quiet. Ceylon is quoted from 12s. per lb., spot; for July-August shipment, 10s. 7½d., c.i.f. Java on spot quoted at 13s. per lb.; for shipment, 11s. c.i.f.

CLOVE.—English-distilled bud oil is from 8s. to 31s. per lb., with other grades of P. oil at about 27s. 6d. Madagascar leaf to come forward, 14s. 9d. per lb., c.i.f. CUBEBS.—English-distilled is offered at from 50s. to 55s. per lb. Imported is quoted at from 60s. to 65s.

CUMIN.—Quotations for English-distilled are about 70s. per lb.

DILL.—English-distilled oil is quoted at about 60s. per lb. for B.P. quality. Imported oils are offered at from 47s. to 6s. per lb., as to holder. East Indian, 6d., spot.

EUCALYPTUS.—Continues scarce. 70 to 80 per cent. eucalyptol, for shipment, is nominal at 8s. c.i.f.

FENNEL.—Spanish sweet on the spot quoted at 12s. 6d. to 17s. 6d. per lb.

GERANIUM.—Quiet. Bourbon on the spot is from 165s. to 170s. per lb.

GINGER.—Firm. English-distilled oil is in the region of 170s. to 230s. per lb., as to grade. Imported oils are available at from 175s. to 180s. per lb.

JUNIPER BERRY.—Imported oils are offered at from 22s. per lb., duty paid; English-distilled is offered at 75s. to 95s. per lb., as to seller and grade.

LAVANDIN.—Spot quotations are in the region of 28s. 6d. to 30s. per lb., according to quantity.

LAVENDER.—French, 38-40 per cent. linol, on the spot is quoted at 47s. per lb.; 40-42 per cent., 50s. "Mitcham" oil is about 130s. Spanish spike is from 26s. 6d. to 28s. per lb., on the spot.

LEMON.—A weak market. Sicilian hand-pressed (4 per cent. citral) is quoted at prices up to 65s. per lb., c.i.f.; but spot supplies are offered at 48s.

LEMONGRASS.—Spot quotations are from 23s. 6d. to 26s. 6d. per lb., as to quantity; for September shipment, 20s. per lb., c.i.f.

LIME.—Scarce. West Indian distilled is about 70s. per lb., spot, nominal.

NUTMEG.—English-distilled oil is about 55s. to 57s. 6d. per lb. Imported oil (B.P.) is about 37s. 6d. to 40s., duty paid.

OLIVE OIL.—French virgin in 48-gall. drums, spot, 29s. per gall.; pharmaceutical, 28s. 6d. per gall. French virgin (maximum acidity 1 per cent.) is offered for shipment at £292; Tunisian virgin at £280; and French pharmaceutical (maximum acidity 0.25 per cent.), at £287 per 1,000 kilos, c.i.f. London.

ORANGE.—Various prices quoted ranging from 20s. to 40s. according to quality and source.

OTTO OF ROSE.—Scarce. Turkish, 400s. per oz., spot, nominal.

PALMAROSA.—Spot quotations are nominally from 55s. to 57s. 6d. per lb.

PATCHOULI.—Steady. Singapore is offering on the spot at 84s. and Seychelles at 85s. per lb.

PENNYROYAL.—Supplies on the spot are available at from 55s. per lb.

PEPPERMINT.—Chinese *arvensis* oil on spot is 33s. to 34s. per lb.; afloat, 31s. to 32s., c.i.f., as to position. Brazilian on spot is 28s. per lb. Continental "Mitcham" *piperita* is offering at about 60s. per lb., while American B.P. oil is from 62s. to 70s. per lb., ex warehouse.

PIMENTO BERRY.—English-distilled oil, 85s. per lb. Imported oil is from 45s. to 47s. 6d. per lb., spot.

PINE.—*Pumilionis* on the spot is quoted at from 18s. to 20s. per lb.; *sylvestris* is at about 16s. per lb., and Siberian (*abietis*) is about 24s. 6d. per lb.

TRADE MARKS

From the "Trade Marks Journal," July 25

For industrial chemicals (1).

OXIL, B694,235, by Ruhr-Chemie Aktiengesellschaft, Oberhausen Holten. ZIRFLUX, 697,348, by Associated Lead Manufacturers, Ltd., London, E.C.2.

For non-medicated toilet preparations (3).

OPALENA, 697,002, by Paul Bidmead, London, W.1. SHADEMASTER, B698,153, by Philip H. Mason & Son, Norwich.

For soaps (3).

SKYLON, 698,056, by Premier Soap Co., Ltd., Hull.

For pharmaceutical preparations (5).

AGOCHOLINE, 677,493, by Fitzroy Laboratories, Ltd., Alperton. MYKOZEM, 686,030, by Chemosan-Union Aktiengesellschaft, Vienna. HOVEDENE, 689,819, by P. Mitchell & Son, Glasgow. AROCIN, 696,751, Modern Health Products, Ltd., London, W.1. PENAQUAMY-CIN, 697,083, by Bristol Laboratories, Inc., New York. TRICHOVAGAN, 698,276, by Camden Chemical Co., Ltd., London, W.C.1. ZWIX, 699,088, by A. N. Products, Ltd., Amersham.

For veterinary preparations (5).

HERDALINE, 691,211, by William Robinson McNabb, Lurgan.

For vaccines for the treatment of hog cholera (5).

ROVAC, 694,053, by American Cyanamid Co., New York.

For infants' and invalids' foods (5).

VITACREMO, 697,371, by Vitacream, Ltd., London, E.C.3.

For medicated tonic preparations containing iron (5).

FORTRIS, 697,672, by Reckitt & Colman, Ltd., Hull.

For all goods excluding medicated confectionery, infants', invalids' and dietetic foods (5).

SHALIMAR, 698,396, by the Dubarry Perfumery Co., Ltd., Hove.

For insecticides, fungicides and weed and vermin killing preparations (5).

SYTAM, 698,478, by the Murphy Chemical Co., Ltd., Wheathampstead.

For deodorants containing chlorine (5).

ODOCHLOR, 698,560, by Camden Chemical Co., Ltd., London, W.C.1.

For all goods (5).

LEVOPHED, 699,128, by Winthrop Products, Ltd., S.W.1.

For scientific instruments and apparatus (9).

Circle device including cross, 696,865, by Chirana, Narodni Podnik, Prague.

For photographic apparatus (9).

SNO-DAN, 697,198, by Snodan & Co., Bourne-mouth.

For optical apparatus and instruments (9).

PERSOL and MEFLECTO, 698,339-40, by Giuseppe Ratti, Turin.

For scientific glassware (9).

FORDWYK, 698,97, by Poulten, Selfe & Lee, Ltd., Wickford.

From the "Trade Marks Journal," August 1

For photographic chemicals (1).

PHILIPS, B669,327, by Philips Electrical, Ltd., London, W.C.2.

For industrial, scientific and photographic chemicals (1).

OFNA, 694,568, Naphtol-Chemie Offenbach am Main.

For non-medicated toilet preparations (3).

PRIMOSA, 694,423, by Premier Soap Co., Ltd., Hull.

For non-medicated hair lotion (3).

VITARINSE, 697,134, by Philippe, London, W.1.

For hair waving preparations (3).

QUAVE, 697,538, by Devon Cold Wave Co., Ltd., London, W.2.

For preparations for removing hair-dye stains from the skin (3).

WOOPS, 697,538, by Philippe, London, W.1.

For perfumes, cosmetics and non-medicated non-saponaceous toilet preparations (3).

TANTIVY, 698,060, by Boots Pure Drug Co., Ltd., Nottingham.

PRINT AND PUBLICITY

Display Material.—A stand to take the full range of Poem beauty preparations is now being distributed by Icilma Co., Ltd., Isleworth, Middlesex.

Counter Leaflets.—Leaflets for Esoderm medicated shampoo will be sent on request. Price Laboratories, Ltd., Pyramid Works, West Drayton, Middlesex.

Medical Leaflets.—Leaflets, folders and booklets are obtainable from manufacturers as listed below:—

ABBOT LABORATORIES, LTD., Wadsworth Road, Perivale, Greenford, Middlesex: "What's New June-August, 20 pp.; first issue of an illustrated magazine dealing with medical subjects published as a service to doctors.

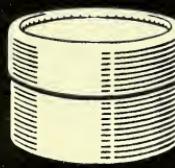
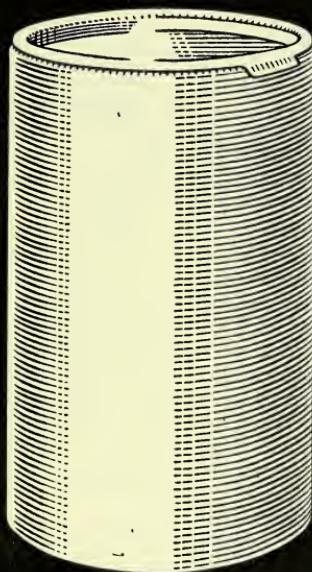
LILLY RESEARCH LABORATORIES, ELI LILLY & CO., Indianapolis 6, Indiana, U.S.A. "Research day," No. 2. Review article: "Topical Antiseptics," and list of publications of Lilly research laboratories staff (pp. 20).

PHARMACEUTICAL SPECIALITIES (MAY & BAKER) LTD., Dagenham: Avomine (4 pp.); Sulphathiazole (2 pp.); "Choice of agent in Parkinson's Syndrome" (Lysivane, Diparcol and Phenergan) (pp. 4). Cards.

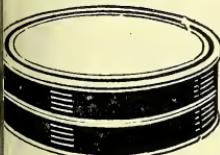
ROCHE PRODUCTS, LTD., Welwyn Garden City, Herts: "Prostigmin Indications and Dose" (4 pp.); blotter and postcard giving dosage references to the use of Gantrisin.

SANDOZ PRODUCTS, LTD., 134 Wigmore Street, London, W.1: Mesontoin and Hydantoin-San (for treatment of epilepsy) (16-p. brochure).

THE BRITISH DRUG HOUSES, LTD., Graham Street, City Road, London, N.1: MycI (4 leaflet); Dehydrocholin, B.D.H. (blotter); Egyen Elixir (4-p. leaflet).

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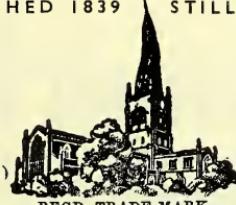
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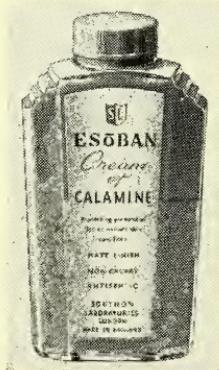
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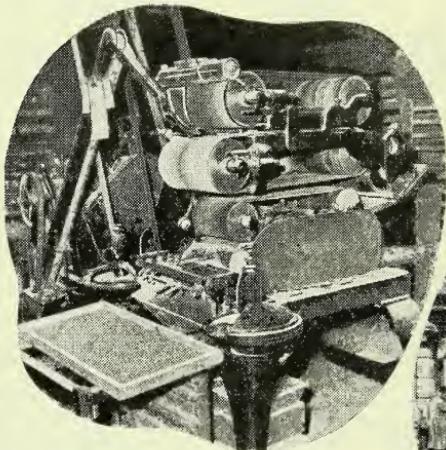
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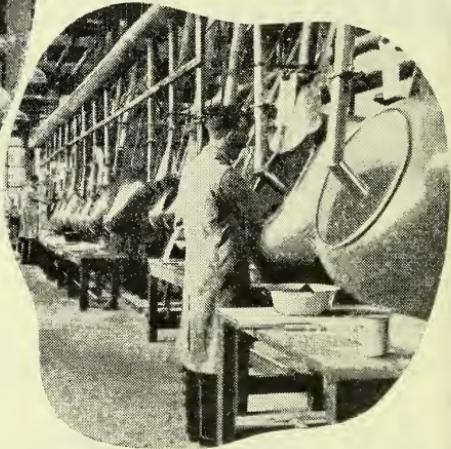
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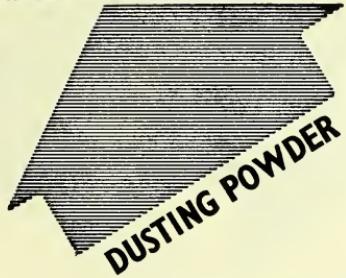
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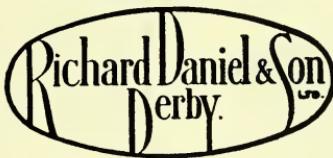
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MOORE MEDICINAL PRODUCTS LTD

I, QUEENS TERRACE
ABERDEEN. Tel: 27233

64 GLOUCESTER PLACE
LONDON, W.I. Tel: WELbeck 5718/9

Detailed Price List on Request

A quality film at popular price!

Bauchet

HYPERPAN 32° (120 & 620) - 2/9 retail

and **HYPERCHROMATIQUE (120 & 620) 2/7 retail**

NON-FLAM
BASE
ROLL-FILM
Sizes: 120, 620, 127



In damp-proof
ALUMINIUM
CONTAINERS

Of pre-war repute, the BAUCHET ROLL FILM is gaining an ever increasing position amongst the recognised brands. It combines speed with fine grain and colour correction.

Ask also for BAUCHET REVERSAL CINEFILM 8, 9·5 and 16 mm.
and BILORA FLASH BOX CAMERAS

AT FULL
TRADE DISCOUNTS
FROM DISTRIBUTORS

ACTINA

10 DANE STREET,
HIGH HOLBORN,
LONDON, W.C.1

Please
keep our
cases . . .



**we'll
collect them!**

It will help us greatly to maintain deliveries of Andrews Liver Salt if you will kindly put the empty delivery cases safely aside until our traveller can collect them. We allow 6d. each for cartons in good condition. **THANKS!**

ANDREWS

SCOTT & TURNER LTD.

ANDREWS HOUSE, NEWCASTLE-UPON-TYNE, I
GT6/4/50

GLANOID
L.I.R.B.M.

Combining Liver Extract,
Ferri et Ammon Cit. Red
Bone Marrow and Extract.
Malti Liq.

An ideal nutritional adjuvant and
haematinic tonic for infants,
children and adults.

2 oz. bottles, with dropper,
4 oz., 8 oz. and 16 oz.

DISPENSING PACKS:
40 oz., 80 oz. and 1 gallon

THE ARMOUR LABORATORIES
(ARMOUR & COMPANY LTD)

LINDSEY STREET, LONDON, E.C.1

Telephone: Clerkenwell 9011
Telegrams: "Armosata-Phone," London

Pond's Price Revisions

Owing to the continued rise in the cost of production, we regret the necessity of revising our prices, as shown below. Orders received on and after 15th August, 1951, will of necessity be charged at the new prices.

		NEW RETAIL PRICE <i>including Purchase Tax</i>	OLD PRICE
Pond's Vanishing Cream, Cold Cream, and Liquefying Cream	Jar, small „ medium „ large „ extra large <i>(Cold Cream only)</i>	1/4 2/8 5/3 10/6	1/2 2/5 4/10 9/8
Pond's Vanishing Cream, Cold Cream	Tube, small „ large	1/3 2/4	1/1 2/-
Pond's Face Powder	Box, small „ medium „ large	1/4 2/4 4/-	1/2 2/- 3/5
Pond's Lipsticks	Small Large	1/5 5/6	1/3 5/3
Pond's Hand Lotion Pond's Skin Freshener	Bottle, small „ medium	1/8 3/4	1/6 3/-
Pond's Talcum Powder		3/-	2/9

The prices of our other lines remain unchanged

Pond's Extract Company Ltd.

16 WADSWORTH ROAD, PERIVALE, GREENFORD, MIDDLESEX

GUIDE TO THE SUPPLY OF

Scholl Surgical Hosiery

UNDER N.H.S. (FORM E.C.10)



THE PRESCRIBER MAY SPECIFY THE FOLLOWING TYPES :

TWO-WAY STRETCH

in these grades :

LASTEX Two-way Stretch
ELASTIC NET
RUBBERLESS

if "Two-Way Stretch" is prescribed, but no grade specified, **ELASTIC NET** should be supplied.

ONE-WAY STRETCH

in these grades :

SEAMLESS Fine Thread
SEAMED Fine Thread
SEAMLESS Stout Thread
 (for anklets and kneecaps)

if "One-Way Stretch" is prescribed, but no grade specified, **SEAMLESS** Fine Thread should be supplied for Stockings and Thigh Stockings, or **SEAMLESS** Stout Thread for Anklets and Kneecaps.

When type of Hosiery is not specified, e.g., just "elastic stockings," the following should be supplied and prescription endorsed appropriately :

**STOCKINGS : Either SEAMLESS FINE THREAD ONE-WAY STRETCH,
 or ELASTIC NET TWO-WAY STRETCH.**

THIGH STOCKINGS : ELASTIC NET TWO-WAY STRETCH.

SCHOLL SURGICAL HOSIERY IS MADE IN ALL TYPES ENABLING ALL PRESCRIPTIONS TO BE FULFILLED.

Supply of Scholl STOCK SIZE CHARTS and Scholl MEASUREMENT ORDER FORMS should be held by all chemists. They will be gladly sent upon request.

THE SCHOLL MFG. CO. LTD., 182/204, ST. JOHN ST., LONDON, E.C.1



Another Addis user
with shining hair!
Lesley Howe, of
Lanvin, Paris.



For hair beauty, Julia
Daniell, of Frederick
Starke, relies on her
Addis.

These
Paris and London
mannequins are
working for
you!



Addis enthusiast, too, is Ghislaine de Boysson,
of Schiaparelli.



Cherry Marshall, Susan Small mannequin, deep-
brushes her hair with an Addis.

Glamorous sponsors for the Addis Beauty Brush!

Photographs of these lovely London and Parisian
mannequins using the Addis Beauty Brush are seen by
11 million women readers of big national magazines . . .
they will want an Addis too!

The
Addis
RICO

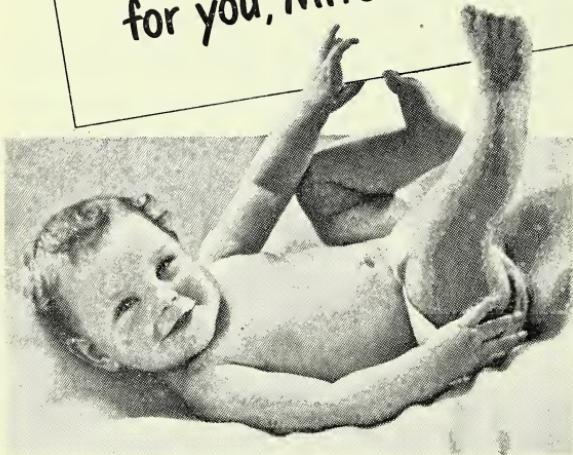
Beauty Brush

SELLS ALL THE YEAR ROUND



PRICES: ADDIS BEAUTY BRUSH 12/6 JUNIOR BEAUTY BRUSH 8/6 ADDIS BEAUTY COMB 1/11

I'm coming to work
for you, Mr. Chemist!



Just about every mother in Britain will see this picture.

It is featured in the current Heinz Strained Foods advertisements, which will appear in every woman's magazine of importance: over 11,000,000 copies in all.

As a recent national survey has shown, most mothers nowadays give their babies canned strained foods, and the overwhelming majority of them choose Heinz.

It's a new business that has grown up to meet a new need, and it is growing all the time.

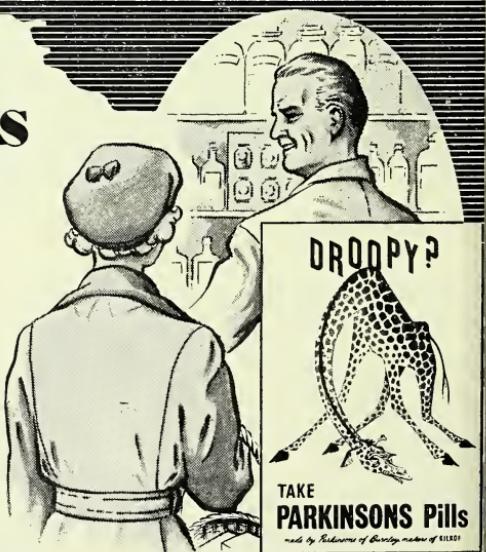
57
HEINZ
STRAINED FOODS
16 VARIETIES
All now 7d. retail



"A bottle of **PARKINSONS** **PILLS** please"

Do make quite certain that you can supply what the customer asks for. And people are always asking for Parkinsons Pills—just as they ask for Kilkof during the cough season.

The new "Droopy" National advertising campaign will give fresh impetus to their demand. Give them Parkinsons, satisfy them, and profit from repeat sales.



PARKINSONS LTD. MANUFACTURING CHEMISTS, BURNLEY

THERE'S NO BETTER TOWEL VALUE THAN

A QUALITY LINE
AT A COMPETITIVE PRICE
IN CONSTANT DEMAND

SILCOT

It Brings You Regular Sales and Assured Profits

Compare the quality and the price and you will agree with many others—both retailers and users—that there is no better value in sanitary towels than Silcot.

You will see that Silcot is a cotton-wool towel, that it has soft knitted covers and stitched loops. And yet a woman can buy Silcot at a relatively reasonable price.

This is what makes Silcot such a good line for the pharmacy. It is a quality towel and yet keenly priced. It gives a woman the fullest comfort and she becomes a regular user. The chemist gets regular repeat business.

Another thing to remember, too, is that Silcot is nationally advertised—one of the most extensively advertised towels on the market.

This is a reproduction of the advertisement running in the leading women's magazines

Sah... Miss SILCOT says -

**You Can Be
Comfort-wise**



—and yet economical.

Silcot towels, so safe
and comfortable, are
economical in use.

SILCOT

SANITARY TOWELS

Comfort with Economy

SILCOT

Sanitary Towels

MACDONALD & SON LTD., HOPE MILLS, POLLARD ST., MANCHESTER 4



For the sickroom, Zoflora can be recommended for the dual purpose of purifying the air and, with its pleasantly refreshing perfume, it is conducive to untroubled sleep.

A splendid seller in all seasons, for the home, the hospital and public rooms of every kind.

Zoflora

perfumed

DISINFECTANT

is a preparation of antiseptic floral oils and synthetics, to be diluted with water for spraying.

Retail Prices: In bottles, 2/6, 9/- and 18/-

Also complete spraying outfits 12/6 and 30/-

Usual Trade Discounts



T.Z.10

THORNTON AND ROSS, LTD., HUDDERSFIELD, ENGLAND

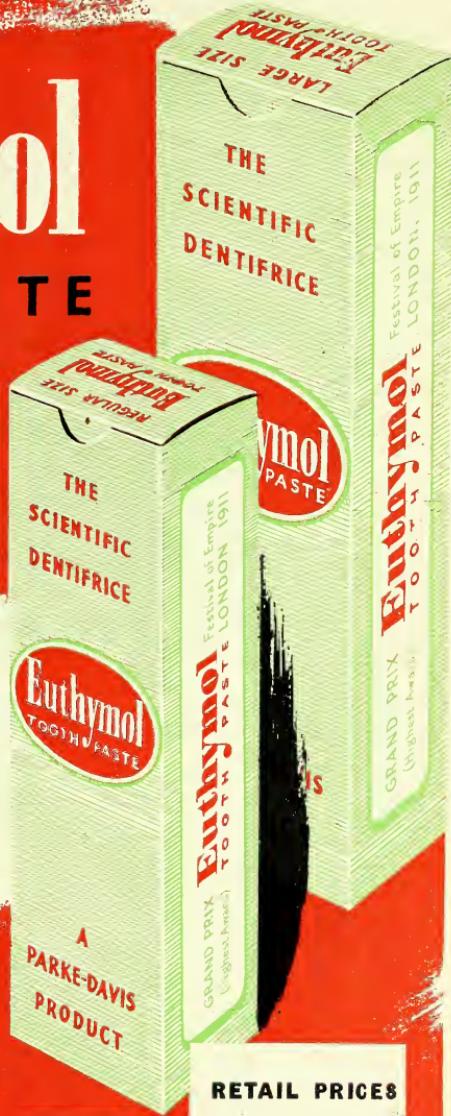
Euthymol

TOOTH PASTE

in a

NEW dress and
NEW large size

Modern styling of the carton has improved the shelf appearance of this long-established dentifrice which is now available in two sizes — the original standard size and a new, double size.



RETAIL PRICES

Standard Size 1/8d.

Large Size 2/6d

PARKE, DAVIS & COMPANY, LIMITED

Inc. U.S.A.

HOUNSLOW, MIDDLESEX

FOR HOME & EXPORT

Tartaric Acid B.P.

Citric Acid B.P.

**Ephedrine
Hydrochloride**

Hormones

Iodides



★ We can
supply these
and many other
items advan-
tageously.

**M.W.HARDY
AND COMPANY
(OVERSEAS) LTD**

PINNERS HALL · GT WINCHESTER ST · LONDON · E.C.2

TELEPHONE: LONDON WALL 7131

Come back to comfort!

Perhaps you are a woman who has stopped buying 'all-wool' sanitary towels on account of their price. Is it worth it—when you consider the ease and security you have lost? The answer is "no". For when you buy VELFIN you pay to fill in extra for so much more comfort. No other 'all-wool' towel is finer in quality, or cheaper in price.

Velfin towels never rub, never rope, never show, and never, never let you down. Try Velfin next time—and feel the difference!

VELFIN
NON-CHAFE SANITARY TOWELS SUPER-SAFE
From chemists only

You can afford comfort!

A you buy, you're always prepared to pay a bit extra. Take sanitary towels for example. I cheerfully pay a few pennies more for a little extra-confidence that you need, and extra-softness if you like. Velfin is no extra. It is finer in quality, or cheaper in price.

Velfin towels never rub, never rope, never show, and never, never let you down.

By price, you need the comfort and soft towels. Try Velfin next time—and feel the difference!

VELFIN
SANITARY TOWELS SUPER-SAFE
From chemists only

Comfort is never dear

We have perfect ease on the most 'difficult' periods—confidence that you need, and softness if you like. Velfin is no extra. It is finer in quality, or cheaper in price.

Velfin towels never rub, never rope, never show, and never, never let you down.

Try Velfin next time—and feel the difference!

VELFIN
SANITARY TOWELS SUPER-SAFE
From chemists only

This advertising will bring you MAW sales!

EVERY chemist knows there's always a market for 'all wool' sanitary towels—and among 'all-wool' towels VELFIN are *best for comfort, quality and value*. That's what Maw's are telling your customers in this big new advertising campaign. Make the most of it by keeping big stocks of VELFIN on your shelves.

Like all Maw merchandise—from chemists only

VELFIN

NON-CHAFE SANITARY TOWELS SUPER-SAFE

M. MAW SON & SONS LTD., BARNET, ENGLAND ESTABLISHED 144 YEARS MAKERS OF ALL SURGICAL DRESSINGS AND BABY GOODS

APPEARING IN:

DAILY MIRROR • DAILY GRAPHIC • SUNDAY GRAPHIC
WOMAN'S OWN • WOMAN'S WEEKLY • PICTUREGOER
WOMAN'S ILLUSTRATED HOME CHAT • GOOD HOUSEKEEPING • WOMAN & BEAUTY
GOOD TASTE • MOTHER & HOME • NURSING MIRROR.

Get busy with the NEW SIZE

Albolene **cleansing cream**

NEW PACK!

Smart, feminine and clean
— with plenty of shelf
appeal and the "BUY
ME" look.



**NEW
PRICE!**

Down to a price
that's in tune with
the times. Down
to only 2/9 —
including tax.

NEW BUSINESS!

Old customers still clamour-
ing—new ones on the way.
And National Advertising
to keep them buying.

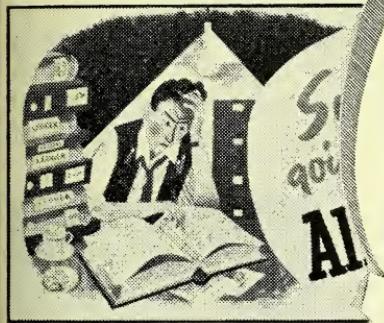
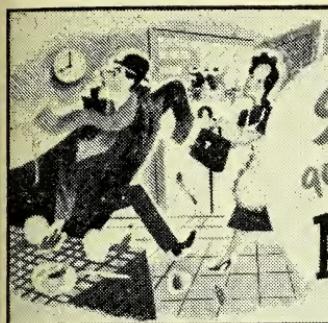
It's a wonderful line in cleans-
ing creams, this Albolene, but
we haven't enough to satisfy
everyone. Remember, it will be
'first come — first served' for
Chemist and Customer. Send
in your order for the new 'Trial'
size NOW!

Retail:— 2/9 per tin, inc. tax.
Trade:— 26/8 per doz. inc. tax.

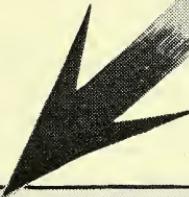
Also available in 'Boudoir' size
Retail:— 4/3 per jar, inc. tax.
Trade:— 40/- per doz. inc. tax.

Packed in dozens in outstand-
ingly smart display cartons you'll
be proud to show on your counter.

McKESSON & ROBBINS LTD
Eagle House, 90/96, Cannon Street, London, E.C.4



**For Acid
Indigestion,
Headaches,
Cold Symptoms,
Muscular
Aches and Pains . . .**



Everybody's going to see this new, intriguing ALKA-SELTZER slogan in the National and Provincial Press, Magazines and Transport advertising, etc. ALKA-SELTZER advertising is always at work creating new users—More Sales For You! Write now for attractive display material to:

DON S. MOMAND LIMITED
58 ALBANY STREET, LONDON, N.W.1
Telephone: EUSton 5184 (3 lines)

Sole Distributors for Miles Laboratories Limited, Bridgend, S. Wales



By Appointment
G. B. KENT & SONS LTD.
Brushmakers

Important Notice FESTIVAL of BRITAIN

2/3rds

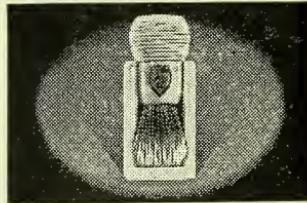
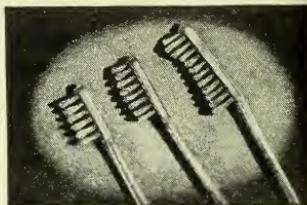
approximately of all Toilet and Toothbrushes sent by the numerous brushmakers in the United Kingdom, Belgium, France, Italy and other countries, to the

U.S.A. are supplied by ONE Company, G. B. Kent & Sons Ltd. (Kent of London.)

Remarkable? Not at all! The American public appreciate Kent Quality and Kent Craftsmanship and, despite the higher retail prices of Kent Brushes over American Brushes, due to import duties, shipping charges, etc., they are pleased to pay a higher price to get what they want.

Festival Year is bringing many thousands more Americans to Britain and experience has proved that American tourists in many cases spend only a few days in London, and then visit various parts of the British Isles. Retailers throughout the country who stock and give good window displays of Kent Brushes will reap the benefit of the extra tourist trade.

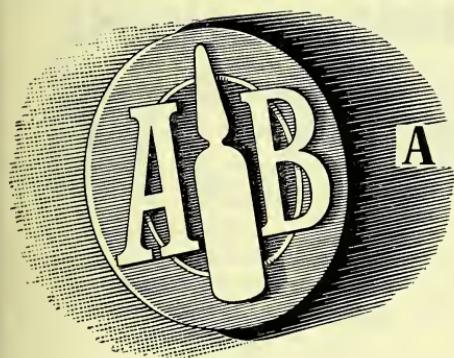
Americans are generous buyers and take home many gifts and mementoes of their trip to Britain. They usually prefer to buy a product they know about, and the U.S.A. certainly knows about Kent Brushes. In their new modern packs Kent Brushes make the ideal gift.



G. B. KENT & SONS LTD.
24 OLD BOND STREET, LONDON, W.1

Telephone : REGent 1471-2-3

Telegrams : Tricho Piccy London



A SYMBOL IS MORE THAN A SIGN

To the psychologist a symbol is not merely a static sign but a dynamic experience. Similarly, to the doctor and pharmacist the symbol "A.B." portrays far more than can be expressed in rational words.

The preference for Insulin A.B. among doctors in all parts of the world is based on trust and experience—on the knowledge that the mark "A.B." signifies all that can be desired in quality and performance.

INSULIN A.B.

INSULIN A.B.

Globin Insulin (with zinc) A.B.

Protamine Zinc Insulin A.B.



Joint Licensees and Manufacturers

ALLEN & HANBURY'S LTD. : THE BRITISH DRUG HOUSES LTD.

SCOTLAND'S SUNDRIES HOUSE

features A FIRST CLASS SUNDRIES SERVICE
CATERING FOR CHEMISTS ONLY

BABY REQUISITES COMBS HAIR BRUSHES NAIL BRUSHES
SHAVING BRUSHES TOOTH BRUSHES HOLDALLS
COSMETIC BAGS ELECTRIC BLANKETS PERIHEL LAMPS
HOT WATER BOTTLES SPONGES RUBBER GLOVES
SICK ROOM REQUISITES HYPO SYRINGES AND NEEDLES
MANICURE REQUISITES BOTTLES AND BOXES

DRUGS PATENTS CHEMICALS

CALLANDER & TULLY LTD

Wholesale and Manufacturing Chemists

9 VICTORIA STREET, EDINBURGH 1

Telephone Central 5091

Telegrams "Calantul, Edinburgh "

NEW HAIR COLOUR RINSE

achieves RECORD SALES!

Every stockist is reporting record sales of this remarkable new hair colour rinse from Paris. Widely advertised, it has only to be shown to be sold.

Get a stock from your wholesaler now.

COLORAL

Made in six shades:—Deep Brunette, Velvet Brown, Hazel Brown, Burnished Gold, Auburn, Steel Blue. Retailing at 1/3d. per card of two rinses.



TRADE PRICE

6/- per dozen (plus 100% tax) in boxes of two dozen of any one shade, or in a fixed assortment of two dozen.

Packed and distributed in Great Britain by

GOLDEN LTD., 2/4 DEAN STREET, LONDON, W.I. (Tel: GER 4926)

MOTHAKS

Already MOTHAK sales in 1951 are far greater than the complete sales for 1950, which was an all time record year.

THOMPSON & CAPPER WHOLESALE LTD.

Speke Hall Road, LIVERPOOL, 19

When women believe- they BUY!

Every day letters like these arrive, proving the ever-rising appeal of BRISTOW'S LANOLIN SHAMPOO. Bouquets for Bristow's mean sales for you. Show it, recommend it — and be ready for the constant demand.

LIVERPOOL

Dear Sirs,
I feel I must write and let you know how pleased I am with the results of your Lanolin Shampoo. It really does all you claim for it. My little girl has a head of lovely natural curls, but it never looked lovelier than lately after one tube of your Shampoo — the shine and the silkiness are constantly remarked upon.

Yours faithfully,
(Sgd.) MRS. H. B.

WIGAN

Dear Sirs,
I am writing to compliment you on producing such a wonderful shampoo as Bristow's Lanolin Shampoo. It really lives up to what the advertisements claim to be, and I find that the Lanolin ingredient is especially good in correcting dryness.

I have found your shampoo exceptionally good before doing Home Permanents, as the hair is left silky, as supple, just right to take and hold a perm.

Yours sincerely,
(Sgd.) MISS J. H.

NOTTINGHAM

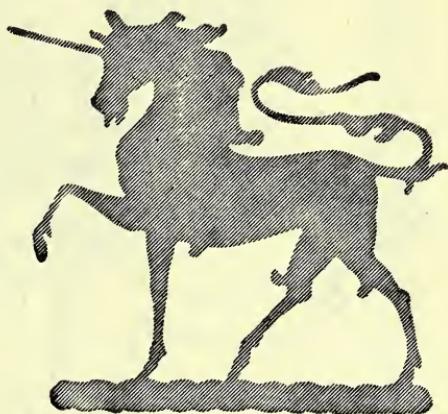
Dear Sirs,
I would like to tell you how much I enjoy using your Bristow's Lanolin Hair Shampoo. My hair was dry and brittle but your shampoo has improved it greatly. My daughter (aged 17) uses it too — and is delighted with the results. We both recommend Bristow's Lanolin Shampoo to our respective friends, having great confidence in it ourselves.

Yours faithfully,
(Sgd.) MRS. D. R.



HANDY TUBE: 8/10 a dozen plus purchase **STANDARD TUBE:** 14/2 a dozen plus purchase
tax at 33½% to retail at 1/3. tax at 33½% to retail at 2/-.

The brand
makes the
distinction



Pharmacists have learnt to tame the vegetable purgatives, known in other centuries for their vigour. They have combined very small doses of several, so that adequate laxative action is obtained without causing irritation. A gentle natural action and sustained intestinal tone are finally ensured by adding a mild antispasmodic and a carminative.

Such is the art which goes to make 'Tabloid' brand Laxative Vegetable.

Such is its reputation that many customers insist on 'Tabloid' brand.

**Each sugar-coated product
contains :—**

Compound Extract of Colocynth, B.P. 1914	...	...	...	...	...	...	gr. 1
Extract of Jalap	...	...	...	...	...	...	gr. 1/2
Podophyllum Resin	...	...	...	...	...	...	gr. 1/4
Green Extract of Hyoscyamus, B.P. 1898	...	...	...	...	...	...	gr. 1/4
Menthol	...	—	—	—	—	—	gr. 1/20

Retail Prices:

Bottle of 25	.....	1s. 4d. plus 4d. tax
Bottle of 100	.....	3s. 9d. plus 11½d. tax

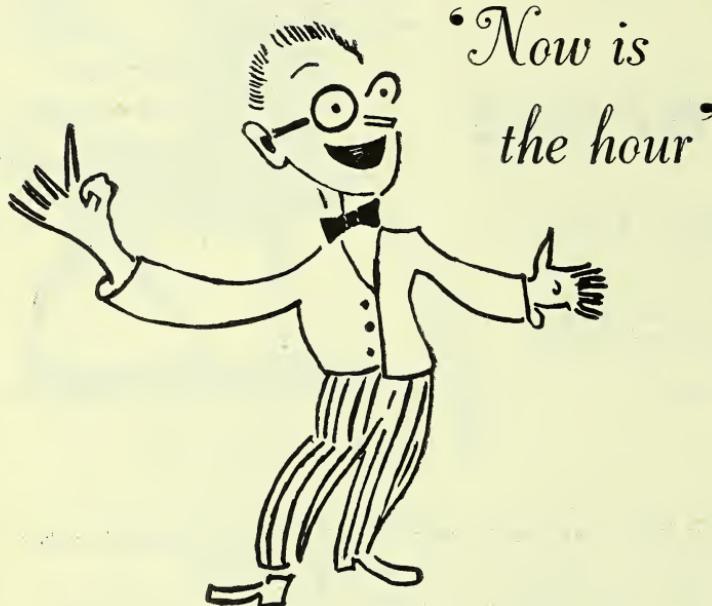
'Tabloid' BRAND Laxative Vegetable

(REVISED FORMULA)



BURROUGHS WELLCOME & CO. (The Wellcome Foundation Ltd.), LONDON

JOHN WISEMAN M.P.S BURSTS INTO SONG



*It's holiday time so we won't
depress you by talk of shortages—
tins—cartons—tubes and all the rest.*

*Let's just say that if you wish
to meet the oncoming season with reasonable stocks
of Medicated Pastilles you should order now from*

WARRICK BROS. LTD. LONDON · N·I

- CHERRY COUGH • CHILDS OWN COUGH •
- GLYCERIN OF THYMOL • GEE'S LINCTUS •
- HEXYL RESORCINOL and BLACKCURRANT •

and the usual 'own name' series



Joseph Jewell (Luke Howard's foreman) who was in 1813 co-opted as a partner, left behind him a quaint autobiography in doggerel verse describing his rise to fame. Speaking of his new responsibilities as a partner he says—

*I first the places overturn'd
Where I thought too much fuel burn'd,
In wasteful conflagration;
And when I had them built again
I saved six fires out of ten
By such an alteration.*

Although almost 140 years ago the need for economy in fuel had not the significance it carries today, it is quite clear that Jewell worked for utmost efficiency and the highest standards in fine chemical production—a tradition which is still maintained by Howards today.

Safe as **HOWARDS**

Bromides, Citrates

Iodides, Iron Salts

Bismuth Salts

Sodium Bicarbonate



Lactates, Aspirin
Salicylates, Ethers
Quinine Salts
Tablets, etc. etc.

HOWARDS & SONS LTD · ILFORD near LONDON

ALL BRITISH PRODUCTS

Nipa ESTERS

ALWAYS RELIABLE



NIPAGIN
NIPASOL
NIPASEPT
NIPABUTYL
NIPABENZYL

PRESERVATIVES
AND ANTISEPTICS
available in both
Purified, Standardised
and Technical Grades
and as
Sodium Compounds

PROGALLIN (A and P) ANTIOXIDANTS
available in both Purified, Standardised
and Technical Grades

PHENOXETOL THE SPECIFIC AGENT
against Gram-negative Organisms

Consult the Nipa
Laboratories Service Department regarding
your manufacturing problems and requirements
for Preservatives, Antiseptics and Antioxidants

NIPA LABORATORIES
LIMITED

TREFOREST TRADING ESTATE, CARDIFF
TEL. TAFFS WELL 228

Sole Distributors for the United Kingdom
P. SAMUELSON & CO.
Africa House, 44/46 Leadenhall Street, London, E.C.3
Telephone: Royal 2117/8

"Eagle" Brand Chemicals

B.P.
PRECIPITATED
SULPHUR

PHOTOGRAPHIC
H Y P O
AND
SULPHITE
CRYSTALS and ANHYDROUS

EPSOM SALTS
GLAUBER SALTS

ARSENATE OF LEAD

Enquiries Invited

JOHN RILEY & SONS, LTD

Chemical Manufacturers

HAPTON near **BURNLEY**

Telegrams :
"Rileys Hapton"

Telephone :
Padigham 290/1

THE
SYMBOL
OF



QUALITY
AND
SERVICE



Aspirin Salicylates
and Allied Products

Graesser Salicylates Ltd

SANDYCROFT

NEAR CHESTER

Phone: HAWARDEN 2125

Grams: Quality Chester



mysore SANDALWOOD OIL

For further information apply to

TRADE AGENT FOR MYSORE

9 Clifford Street, London, W.I. Tel : AMB 6671

BROMISOVALERYL UREA

P. A. S. and DERIVATIVES

PENTAMETHYLENE TETRAZOL

PAPAVERINE and SALTS

EPHEDRINE and SALTS

BARBITURATES

CAFFEINE and SALTS

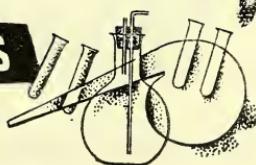
Also full range of emulsifying agents

:::

Literature on request

WATFORD CHEMICALS

WATFORD CHEMICAL CO, LTD.
22/32 Copperfield Road, London, E.3
Tel: Advance 2604/6



*Take it from me
these products
PULL THEIR WEIGHT*

Satino**TOILET
TISSUE**

Satino Toilet Paper in rolls and Interleaved Super soft in boxes — Backed by Nation wide publicity.

**KWICK-DRY****HOUSEHOLD
TOWELS**

A Boon to every housewife. Supplied (Perforated) in rolls. Further details from address below.

Details and Samples can be obtained from the manufacturers:
FREEDER BROTHERS PAPER MILLS
Brimsdown • Enfield • Middlesex
Telephone: HOWARD 1847 (5 lines)
Telegrams: Sylkocrepe, Enfield, Middlesex

FENOLIN P.A.T.A.
FLUID
for WHOOPING COUGH
for use with ELDON VAPORISERS

HALL FORSTER & CO. LTD.
NEWCASTLE UPON TYNE

LacQuit**THE ONLY PERFUMED
LACQUER REMOVER**

NON-SMEARING — NON-DRYING
Order from your usual wholesaler or direct
ANNE SCOTT PREPARATIONS
158 Alcester Road, Birmingham, 13

Femess REGD.

**SANITARY
TOWELS**

for
Perfect Reliability

**HIGH QUALITY
NON CHAFING
HIGHLY ABSORBENT**

In various sizes

**WILFRED STRETCH & CO.
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CASTLETON • ROCHDALE

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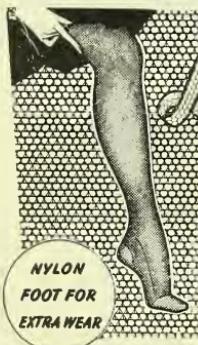
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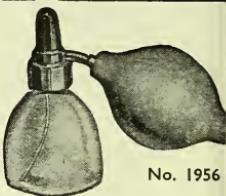


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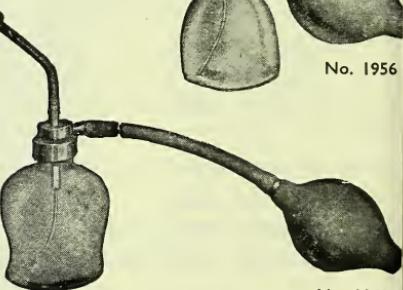
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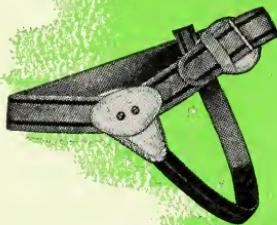


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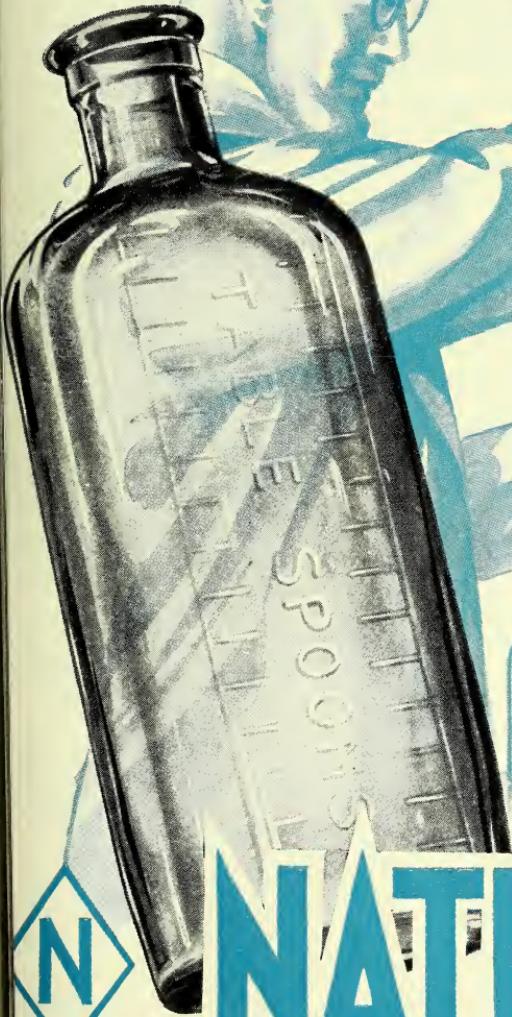
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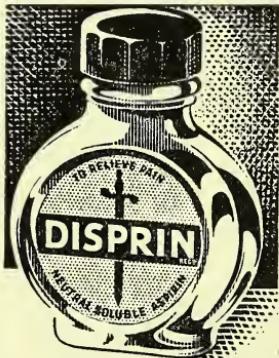
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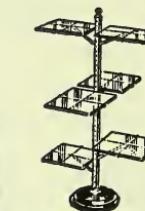
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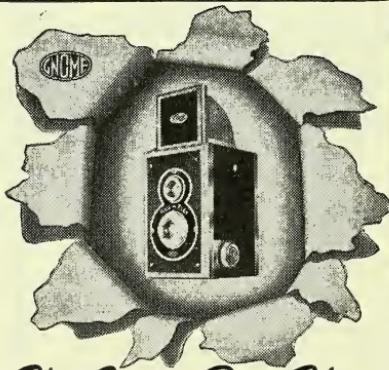
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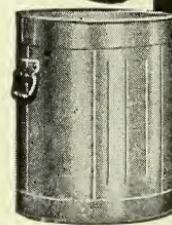
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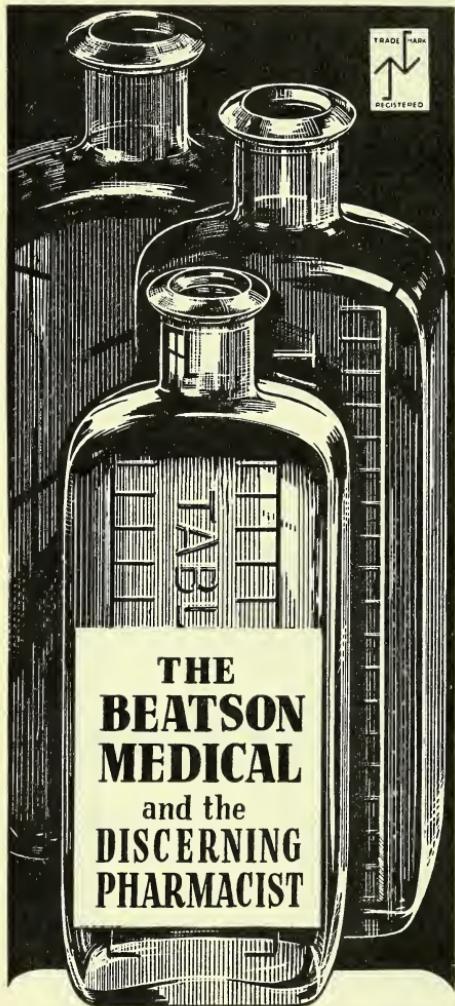
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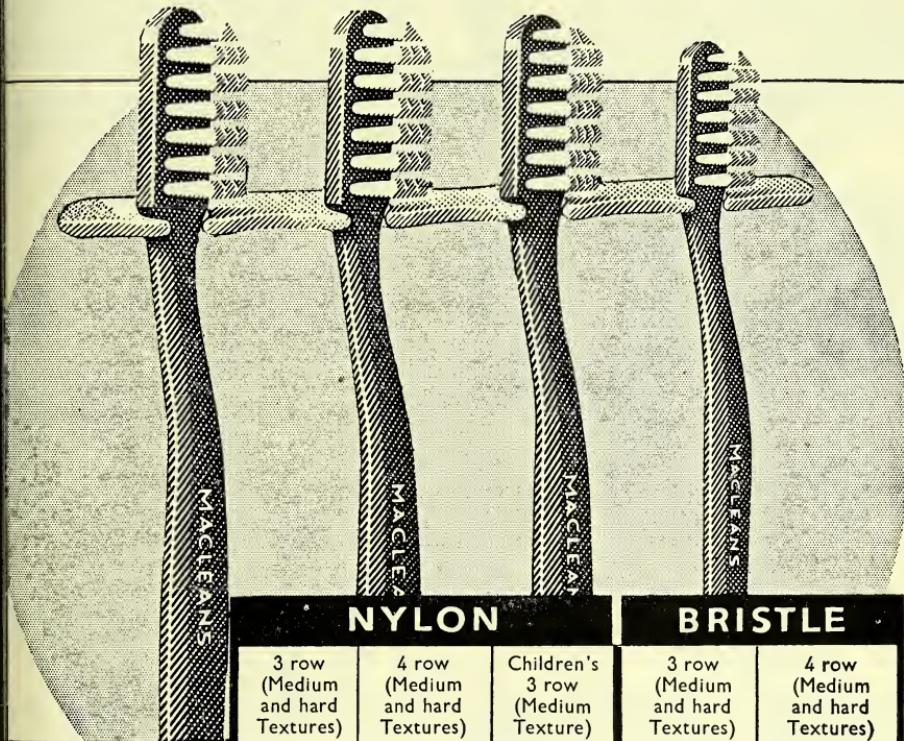
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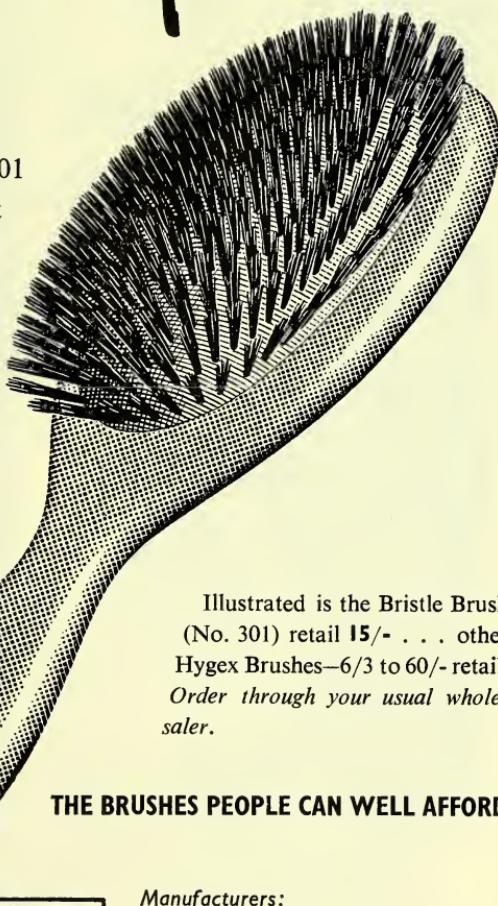
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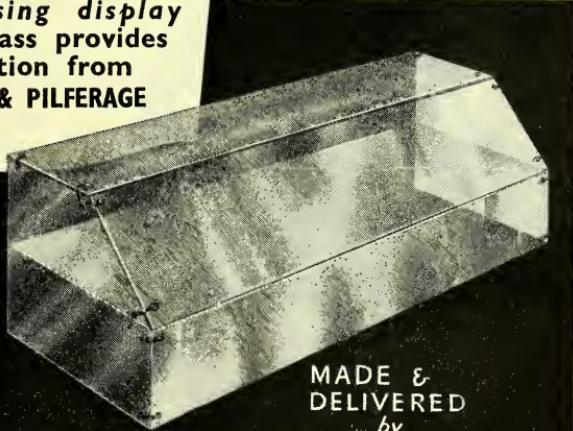
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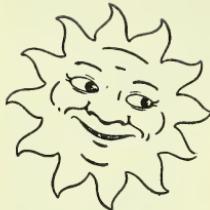
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